3 1761 04649672 5

CITY GROWTH AND VALUES

STANLEY L. McMICHAEL
ROBERT F. BINGHAM

VANCOUVER
TOWN PLANNING
COMMISSION
12.7.28

DONATED TO THE LIBRARY
OF THE UNIVERSITY OF TORONTO

in memory of

HORACE LLEWELLYN SEYMOUR
B.A.SC. 1913
CANADIAN TOWN PLANNER 1915 TO 1940

from his daughter, Marion Seymour
Dip.T&PR 1957

Digitized by the Internet Archive
in 2026 with funding from
University of Toronto

https://archive.org/details/citygrowthvalues0000mcmi

CITY GROWTH AND VALUES

By
STANLEY L. MCMICHAEL, *Realtor*
AND
ROBERT F. BINGHAM, *Attorney-at-Law*

Copyrighted 1923 by
STANLEY L. MCMICHAEL AND ROBERT F. BINGHAM.

First Edition
Published in 1923.
By THE STANLEY MCMICHAEL PUBLISHING ORGANIZATION
Realty Building 1222 Prospect Ave.
Cleveland, Ohio

LIBRARY
NOV 25 1997
UNIVERSITY OF TORONTO

ENDORSEMENT

"City Growth and Values," prepared under the joint authorship of Stanley L. McMichael and Robert F. Bingham, is another of the series of books to be published with the approval of the National Association of Real Estate Boards, and deals with a timely subject in an interesting way. Mr. McMichael, for many years secretary of the Cleveland Real Estate Board, and since 1919 a practicing Realtor in Cleveland, is the author and publisher of "Long and Short Term Leaseholds," the first book issued in the United States on the subject. Mr. Bingham is a practicing attorney who has had unusual opportunities for studying the topics dealt with in the new volume.

"City Growth and Values," is a comprehensive compilation of interesting facts concerning the manner in which cities develop and acute observations on the concurrent movement of real estate values. It will repay careful reading by owners, real estate dealers, city planners, and others interested in the general subject of land economics.

A see p 81

HERBERT U. NELSON, Executive Secretary.
The National Association of Real Estate Boards.

Chicago, Ill.,
Oct. 15, 1923.

FOREWORD

City life, with its complexities and problems, presents an alluring theme about which volumes might be written. This book is dedicated to serious minded readers, who are interested in the evolution of cities from their inception to the time they become great throbbing hives of humanity, where millions are sometimes herded into small areas, their lives and actions directed and controlled by a complicated mechanism which permits them to exist. A modern city represents organization of the highest type. Interfere with one cog of a single great machine, and an entire community suffers. Paralyze all of its transportation facilities for a few days, for instance, and a city starves.

Interwoven closely with its organization are those factors which create, or detract from, values of land, the great economic asset of the functioning unit known as a city.

Years of study and observation have been crystallized in this effort to visualize the modern city, and the elements of its growth. Many have assisted with advice and information, and grateful acknowledgment is tendered to the following: David A. Gaskill, Cleveland, who contributed the chapter on "Taxation;" John W. Leadley, Cleveland, traction engineer; Arthur W. Warner, real estate counselor of The Inter-Borough Rapid Transit Co., New York; Chas. M. Nichols, realtor, and Eugene S. Taylor, of the City Plan Commission, both of Chicago; Joseph J. Schmid, of Indianapolis; Meyer Eiseman of New Orleans; Robt. H. Whitten, city planner; Ward Harrison, and G. R. Lawall, illuminating engineers; Jay Iglauer, Elmore L. Andrews, L. M. Ruggles, Paul E. Gleason, Walter L. Flory, Raymond T. Cragin, James A. Webb of Cleveland, and many others.

It is hoped that this book may serve the purpose of drawing attention to some of the problems which confront American cities, as they now exist, and that it may prove of interest to business men, realtors, students, and others, whose lives and activities are involved in the changing currents of urban life. If it stimulates thought or action which may result in the solution of any of the host of problems involved, the authors will feel that their time and effort in its preparation have been well spent.

TABLE OF CONTENTS

Page

CHAPTER 1—CITIES—THEIR GROWTH 21

Origin of cities both ancient and modern—Sites chosen originally for defense—American forts developed into cities—City sites were later selected close to supplies of water, fuel and food—Geographical superiority helps towns to grow into great cities—Intersections of land and water routes favorite locations for cities—Canals and river fords have encouraged the springing up of cities—Manufacturing cities thrive close to source of raw materials or near important markets.

CHAPTER 2—TYPES OF CITIES 31

Cities classified according to types—Industrial-commercial-farming-political illustration of such types—Historical and geographical reasons for growth—Transition from one type to another—Water faults present obstructions to growth—Marshes are barriers overcome by filling in—Ravines used as rights of way for railroads—How planning of streets helps or hinders growth of a city—Squares and plazas form natural city centers.

CHAPTER 3—GROWTH AS AFFECTED BY SPECIALIZED INFLUENCES 41

Expansion sometimes due to the development of specialized businesses, such as manufacture of rubber in Akron, motors in Detroit, and furniture in Grand Rapids—Ten important factors govern the growth of such cities—Danger ever present of serious business reaction due to trade depressions—Other cities and towns where single industries predominate—Greater diversification of business advisable—Offering of subsidies condemned—Another specialized influence of growth is that of religion as in the case of Salt Lake City—Southern and western Catholic missions responsible for the founding and growth of many cities—Educational institutions help materially in the building up of their immediate communities.

CHAPTER 4—TRANSPORTATION FACILITIES 49

Development of transportation facilities—Effect on urban growth and land values—Interurban lines tend to decentralize residential values—The automobile has revolutionized transportation—Outlying land values respond to newer forms of transportation, particularly the motor car—Use of auto trucks obviates necessity of railroad sidings for many industrial concerns—One way traffic streets and their effect on business—Parking problems becoming acute.

CHAPTER 5—STREETS AND HIGHWAYS 57

Streets afford accessibility to land—Width and layout in relation to the main business center important—Many cities like Topsy "Just Grew"—Thoroughfares, secondary highways and residential streets all have their functions—Streets should have varying widths, with thoroughfares from eighty-six to one hundred feet in width—Diagonal streets useful in distributing traffic—Size and growth of cities limited by street facilities—Initial elements of growth dependent in part upon streets—How business growth will sometimes turn a corner—The cause

Page

of "one street towns" with their accompanying "gold strip" retail districts—Greater care should be taken in planning for future growth to see that adequate streets are provided.

CHAPTER 6—INFLUENCE OF RAILROADS 71

Railroads and their effect on city growth—Expansion of many cities due to the building of great transcontinental lines—How Omaha sprang into importance—Initial growth often begins at a railroad station—Cities which have railroads operating on main streets—Railroads enhance industrial land values—High grade retail sections grow away from railroads—Chicago, Toledo, and other cities owe their industrial importance to railroads—Tendency to have roads join in union terminals—New style terminal stations bring trains in at subgrade, utilizing street frontages and air rights for business—Interurban lines and their checkered careers.

CHAPTER 7—TREND OF PEDESTRIAN TRAFFIC 81

Pedestrian traffic, the weather vane of values—Elements affecting trends of traffic—What is beneficial and what detrimental to retail rental values—Pedestrian traffic congestion sometimes detrimental to certain stores—Classes of city dwellers who do not intermingle—How automobiles are eliminating this condition—Pedestrian traffic dislikes obstructions—Day and night travel in relation to values—Evening traffic is pleasure seeking, and is useful to only certain types of stores—Wholesale districts deserted after sunset—Seasonable traffic.

CHAPTER 8—HOW LAND VALUES DEVELOP 90

Highest values found in retail districts—Main shopping districts in cities similar—Five and ten cent stores seek locations close to stores doing extensive advertising—Drug and cigar stores choose strategic corners—Men's shops take second grade locations—Furniture and piano stores accept cheaper space—Small shops cluster on the edge—Banking districts segregated—The automobile sales district—Development of apartment house districts—How outlying business areas develop—Nuisance types of business now segregated—Public buildings grouped—How churches change locations.

CHAPTER 9—UNUSUAL CONDITIONS AFFECTING RETAIL TRADE AND RENTALS 97

Weather has varying influences on the retailer's business—How advertising is curtailed because of forecasts—Effect of unseasonable weather on trade—How restaurants are affected—Saturday half holidays lead to Saturday whole holidays during summer season—Bad effects following periods of unemployment in a city—Labor disturbances and street car strikes, their reaction on business—Cutting off of electric lights during a busy shopping period prevents sales, as do big fires in retail districts during shopping hours.

CHAPTER 10—PHYSICAL FEATURES INFLUENCING LAND VALUES 104

Physical factors materially affect values—Sun and shade, areas open to high wind velocity, dust, noise from heavy traffic—Large open areas such as parks and squares—Hills and slopes re-

Page

strict growth—Plottage—Water bodies—Sub-soil conditions and the effect on districts underlaid with rock, quicksand, and watery soil.

CHAPTER 11—BUILDINGS AND LAND VALUES 113

A proper relation should exist between the value of land and improvements—Capital endangered by erecting costly buildings on cheap land—Skyscrapers have revolutionized building methods—Good architecture a potent factor in city growth—Old style stores and their defects as compared with modern structures for retail trade—The relation of site to building—Effect of building operations upon business in adjacent establishments—Improvements in office buildings—Hotels and theaters now use cheap inside land and space above ground floors—Modern factory subdivisions provide buildings with improved working conditions—Railroad, vessel and bus terminals the result of a demand for better facilities—Arcades develop new highways of retail trade between heavily traveled thoroughfares.

CHAPTER 12—CENTRAL BUSINESS PROPERTY 130

Holdings in main retail centers pay investors greatest returns—Land in such districts usually increases in value—Population increase reflects increased rentals and value—Peak values in different cities—Fortunes made in ninety-nine year leases—Central business property owned by limited number—Despite mismanagement values increase—Improvements in peak districts should equal land values—Skyscrapers and their mad race toward the clouds—Buildings from six to ten stories usually show the best earnings—High buildings generally erected as monuments—Ground floor should carry the land and taxes—Combination store and office or mercantile buildings pay best returns.

CHAPTER 13—BUSINESS PRACTICES AND THEIR EFFECT ON VALUES 140

Stores like to locate in districts given over to retail business rather than to be isolated—Small non-advertising stores seek locations near big advertisers—Business reputation of neighboring stores tends to affect the value of a district as a shopping center—Cash and carry stores compared with stores extending credit—Attractively dressed windows draw business—Special sales increase trade—Cleanliness an asset—Vacant stores depress a district.

CHAPTER 14—SHIFTING BUSINESS DISTRICTS 149

Growth usually is away from railroad stations and harbors—How New York City has always extended northwards—Los Angeles has changed its direction of growth—Cleveland makes three distinct shifts—How a San Francisco territory changed from homes to business—Conditions in Spokane, Portland and Cincinnati—Why business shifts to new districts—How outlying retail districts grow toward each other—Change in location a natural law of growth, taking from ten to forty years—When values reach a peak extensive development actively begins elsewhere.

TABLE OF CONTENTS—*Continued*

Page

CHAPTER 15—EFFECT OF CHAIN STORES ON VALUES IN RETAIL BUSINESS DISTRICTS 158

Earning power of store locations establishes land values—Bidding for choice locations by chain store concerns boosts rentals, which in turn reflect higher ground worth—Theory of chain store merchandising—Real estate chain store brokers act as scouts for new locations—Effect of new out-of-town enterprises on local merchants—Chain stores seek peak locations—Ability of chain stores to pay rent according to gross sales—Heaviest shopping hours are from 11 to 4 o'clock—Experts who analyze locations—"Men's" versus "women's" towns—Per foot front rentals in different cities—Character of space in demand—Chain stores will not pioneer—National and local types of chain stores—Will high rentals paid by chain store concerns continue?

CHAPTER 16—ARTIFICIAL AND NATURAL FACTORS AFFECTING CITY GROWTH 167

Electricity and its uses—Conditions favorable and adverse to expansion of business and creation of values—Unnecessarily wide streets—Thoroughfares intersecting and forming points or flatirons sometimes show depressing effects—One sided avenues seldom attract big volume business—Unfavorable effect of hilly streets in cities—Lakes and rivers as barriers to business—Cemeteries are shunned—Elevated transit lines affect locations unfavorably—Where streets end at terminals or docks, business development is usually in the opposite direction.

CHAPTER 17—FOREIGN AND RACIAL SETTLEMENTS . 177

Colonization of foreign born residents in sections or "villages" a natural and appropriate tendency—They maintain their own institutions and create their own land values—"Little Italy" to be found as a part of many American cities—Chinatown in San Francisco an important unit in that city's economic life—Most troublesome problem concerns colored people, solved only by segregation—Tenderloin districts, destroyers of property values, have passed from American cities—The Jap problem on the Pacific coast—Restriction of immigration may curtail rapid growth of some American cities.

CHAPTER 18—RAPID TRANSIT AND ITS EFFECT ON LAND VALUES 187

Rapid transit influences the structure and growth of cities—Reduces value of competitive land—Subdividers quick to profit by new service—Transit equalizes districts—Only a few cities have had practical experience in rapid transit—How New York's land values soared with the building of its first subway—Some lines in Brooklyn created slight increase in land values—Dislocates established centers and shifts business—How stations attract shops—Bus lines in cities cause small increase in rentals or values—Rapid transit a problem which most cities are studying—Transportation adds to value of land.

CHAPTER 19—PRIVATE RESTRICTIONS AND THEIR EFFECT ON LAND VALUES 198

Restrictions imposed by deed or contract—Effect on city growth and development—How restrictions affect land values

Page

in districts devoted to business use—Effect on residential sections—Companies refuse to sell to undesirable people—Examples of high grade developments—Business property not usually restricted—Problem of restrictions in districts changing from home to business uses—Restrictions on property ripe for retail development detract from its market value.

CHAPTER 20—NUISANCES 205

A nuisance is an element which works a hardship or damage—Public and private in character—Many businesses are of such a character that they depress values—When such a business becomes a nuisance—Nuisances in a residential district may not be nuisances in a business district—Distinction between what the law considers a nuisance and what is in fact a nuisance—Bans upon certain business either by private or public regulations—Temporary nuisances of a transient character—Little relief afforded at law to fanciful nuisances—Much legislation in effect against undesirable conditions—Restrictions often imposed in deeds and leases against nuisances.

CHAPTER 21—LAND TENURE AS AFFECTING VALUES . 211

Classes of land tenure common in the United States—Fee simple title of highest value—Incumbered fees—Estates less than freehold—Leaseholds—Fees subject to lease—Effect of tenure upon land value—Land contracts.

CHAPTER 22—LAND VALUATION 222

Valuation of land is not an exact science—Land differs from other commodities in that it is individual in character—Subjective value versus objective value—What is market value?—Effect of speculative conditions upon land values—Scattered sales do not represent market value—Analysis of sales best guide to land value—Cardinal factors in determining value.

CHAPTER 23—DEPTH INFLUENCE UPON VALUES..... 230

Principles followed in ascertaining the value of business and commercial frontage—Running front foot and unit front foot methods—Various systems followed in different cities in United States and in foreign cities—Depth curves—Comparison of different systems for measuring the value of lots of varying depths.

CHAPTER 24—CORNERS AND THEIR INFLUENCE ON VALUES 239

Lots located at the intersection of two streets are more valuable than inside lots—Corner lots in residential sections are of little, if any, greater value than inside lots—Reasons for the difference—Various methods used in valuing corner lots—The Baltimore rule—The Jersey City method—The Pleydell rule—The Zangerle rule—Irregular shaped lots—Methods for working out a corner table for a city.

CHAPTER 25—MANUFACTURING AREAS................ 246

Industry requires large areas in which to operate—Some cities specialize in single industry—Factories often seek cheap land in the suburbs—Workmen enjoy proximity of recreational fa-

Page

cilities—Machine manufacturing has added to the growth of cities—Sites selected with reference to location and labor supply—Convenient housing facilities are necessary—Workmen like to live within a half hour traveling distance of their employment—Belt lines link railroads of a city for transfer of freight—Water front locations benefit through cheap lake shipping facilities—Room for expansion desirable.

CHAPTER 26—RESIDENTIAL AREAS 256

A city must have a variety of accommodations in the way of home sites—Restrictions advantageous to residential property—Elements which add value to such tracts—Influences which detract from value—Residence corners have little or no value over inside lots—Prices paid for residential sites vary from $10 to $1000 per foot front—Modern improvements cost from $15 to $25 per lineal foot—Alleys not favored in residential districts—Garages are often attached to dwellings and fences are barred—Houses should cost from three to four times the value of the lots on which they are located.

CHAPTER 27—INCOME ANALYSIS AS A BASIS FOR DETERMINING LAND VALUES 264

Investors acquire land for income, speculators buy for profit—America a nation of speculators, England of investors—Income used as final test of value in Europe—Sales determine value in America—"Years Purchase" defined—Income analysis not final test of value of land unless land is occupied solely on an economic basis, being fully and adequately improved to best advantage—Capitalization rates depend on current interest rate—Income in relation to pedestrian traffic.

CHAPTER 28—DEPRECIATION AND OBSOLESCENCE .. 273

Important to student of land values—Definition and distinction—What effect depreciation has upon land values—Influence of obsolescence upon real property—Depreciation tables—Factors which cause buildings to become obsolete—All property suffers from obsolescence—Constant rebuilding must be in progress in a growing city—Destruction of obsolete buildings recommended even though structurally sound.

CHAPTER 29—TAXATION AND LAND VALUES 280

The general property tax used for raising most revenue—Income on land directly affected by its tax burden—Percentage of income absorbed by taxes often large—Taxes considered as carrying charges—How income taxes affect land values—Investors seek to lease rather than sell property to avoid taxation—Wealthy men sometimes lease non-income bearing property in order to employ funds which otherwise would be taxable—Tax problems require careful analysis.

CHAPTER 30—PREPARING FOR FUTURE AIR TRAFFIC 288

Cities are preparing for this new form of transportation—The airplane here to stay as a transportation facility nurtured under government control—Civic uses of the airplane—Benefits derived by establishing an airport—Principal requirements of landing fields—Transcontinental flights in twelve or fifteen hours appear possible—Difficult to foresee effect on city growth and values.

TABLE OF CONTENTS—*Continued*

Page

CHAPTER 31—RECREATION 294

Facilities better organized in cities than in rural sections—Parks one of the earliest recreation features provided—"Keep off the grass" signs now obsolete—All forms of sports fostered in city parks—Scientific play directed by competent instructors—City golf links quite common—Race tracks and private recreational parks give way before city growth, and often disappear—Instinct to play must not be eliminated—Recreational features of a city prove magnet in attracting settlers.

CHAPTER 32—CITY PLANNING HELPS CITY GROWTH AND STABILIZES VALUES 303

Larger populations can be conveniently accommodated—Shifting of values may be checked—Co-ordinates public improvements—Ten problems of city planning—Public conveniences and improvements scoffed at in their infancy—Transportation related to city planning—Real estate operators approve—How a city plan is conceived and promoted—Paying the price of city planning.

CHAPTER 33—ZONING 315

Zoning a practice of comparatively recent adoption in America—Copied from German cities—First important example initiated in America by New York which adopted its zoning law in 1916—History of the New York situation—What zoning attempts to regulate—Arguments used by those opposed to zoning—Zoning will decentralize property values—Zoning particularly desirable in suburbs of the large cities and in towns emerging into the size of cities—Problem one of control and efficient and honest administration—Zoning generally does not hinder a city's growth, nor does it reduce its real estate values.

CHAPTER 34—ELEMENTS WHICH HELP AND HINDER GROWTH 328

Civic organizations help to crystallize popular and efficient ideas and put them into effect—Real Estate Boards and Associations of Building Owners and Managers, play an important part in city building—Public service corporations now eager to give efficient service—Arbitration of labor disputes, recommended by civic bodies, helps avert disturbances—Mass campaign work among organizations valuable—Civic and private foundations play their part—The city manager plan adopted by many cities—Clean and efficient city government gaining in favor—Great convention halls useful—Cheap power and natural gas helpful in establishing new industries—Abolition of liquor traffic caused saloons and breweries to be put to more useful purposes.

CHAPTER 35—HOW LARGE SHOULD A CITY BE? 336

Is quantity or quality of population the question of most concern?—Size of cities may be checked by restriction of immigration, and distribution of new immigrants to rural sections—Ford's theory of many small industrial centers—Problems of the municipal engineer multiplied as cities grow—Manufacturers being driven out or avoiding large cities on account of high land values, and consequent carrying charges—Tax rates

TABLE OF CONTENTS—*Concluded*

Page

in cities mounting alarmingly—Flow of population to cities due to economic reasons—Sociological problems increase as cities expand—Influences which may tend to check city growth.

CHAPTER 36—BUILDERS OF CITIES 344

Modern real estate developments an evolution of the past twenty-five years—How enterprises covering vast fields have come into being—Keeping pace with modern demands for homes and business places—The real estate operator the man of vision—Local and national associations approve and enforce higher ethical standards—The city builder of America is the Realtor.

ILLUSTRATIONS

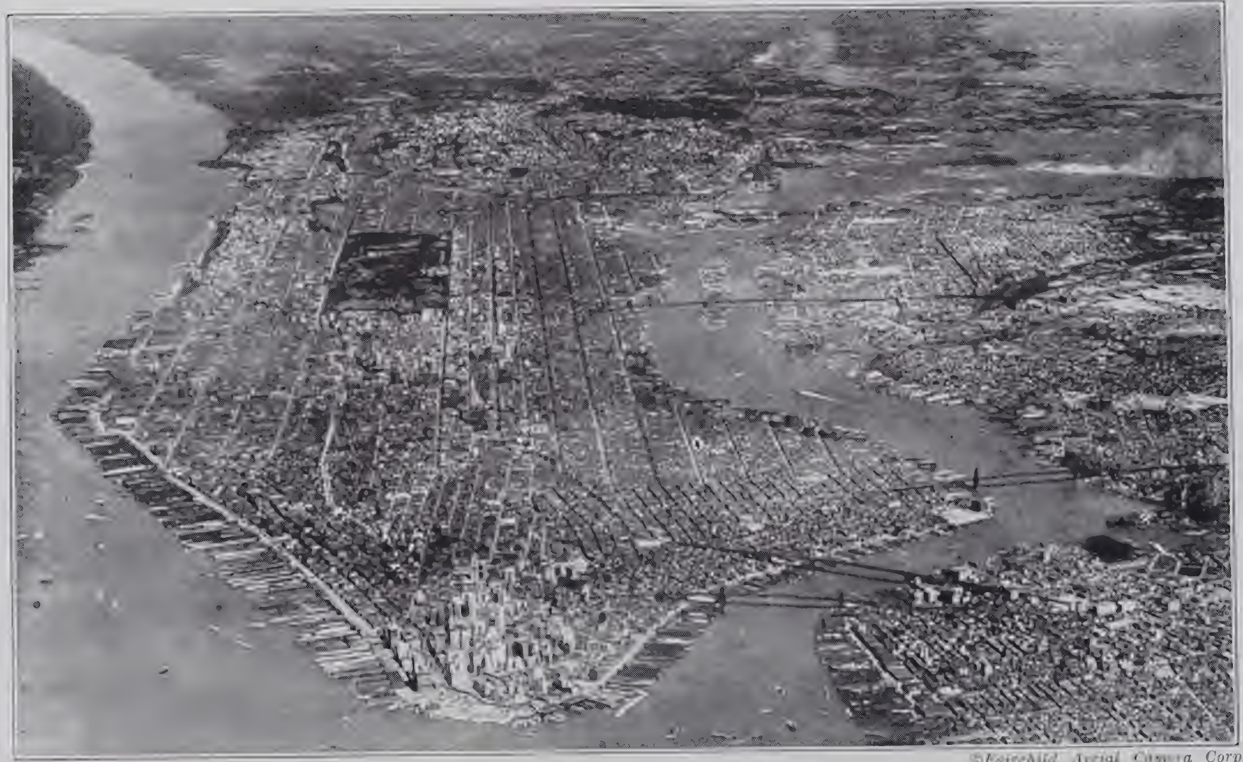
PAGE
New York, the world's greatest city 20
The heart of Paris 25
London's irregular street plan 30
Suggested street plan for a city 37
World's most beautiful business highway 40
Philadelphia looks to the future 48
How will busses affect street cars? 51
Now the bus conductor cries "All Aboard!" 52
A major operation improved Michigan Blvd. 56
America's widest business thoroughfare 59
Street capacity as represented by width 60
Advantages of through traffic routes 62
Diagonal streets on a rectangular plan 63
Trees placed between curb and sidewalk 64
Trees placed inside of sidewalk 65
Developing a main highway plan 67
Profit and loss in street widening 68
Grand Central Station in New York 70
Interurban depot in Indianapolis 75
Trackless trolley car 77
Danger lurks at city corners 80
When the traffic cop says "Stop!" 88
Erected in the "Stone Quarry" architectural era 98
Bank transformed into business block 99
Single purpose buildings 112
Utilizing a misplaced building 114
A business "island" in Chicago 116
Architectural charm in store building 118
A church endows itself 120
Show windows are silent salesmen 122
New departure in hotel construction 123
An evolution in theater building 124
Art in gas stations 126
An attractive auto service station 127
Arcades an economic asset 128
Proper utilization of street frontage 130
Intensive use of city land 134
Bank builds around a corner 137
An up-to-date store front 142
A subway window display 144
Increasing show window efficiency 145
A typical river city 148
America's most fashionable shopping district 151
Typical crosstown business district 155
From church to boarding house 156
Where night is turned into day 166
Profits in window illumination 168
Electric signs diagrammed according to use 169
America's greatest "one sided" street 172

ILLUSTRATIONS—*Continued*

Page
Will cities come to using elevated roads? 174
Percentage of urban population in the United States 176
Urban population chart 180
An attractive subway entrance 186
Are cities coming to "two deck streets?" 188
How subways breathe 190
Subway entrances can be built artistically 192
The kiddies vote for "moving stairways" 193
Subway terminal proposed for Cleveland 195
Subway "wells" ugly and dangerous 196
Not a puzzle but a grim fact 199
Chicago's smallest store 203
World's largest Ferry Terminal 210
Maintaining physical value in buildings 214
Transition from home to business use 218
Old home now a contractor's office 219
Chicago River and its proposed improvement 225
America's finest railroad station 243
A factory that is different 248
America's first daylight factory building 251
Attractive home of wholesaling firm 253
Palace or factory? 254
A novel car track "screen" 257
Yes, it's the corner grocery! 259
The world's first steel skyscraper 272
Artistic bathing pavilion in a city park 295
A waterfront boulevard 296
Tennis courts in city parks 297
A five million dollar pier 298
No more dodging boulevard traffic here 299
Widening city streets by means of arcades 302
Arcaded streets common in Europe 304
Business centers are desirable 307
Los Angeles street traffic chart 308
How traffic density is recorded 310
Comparative efficiency of streets 312
Typical zoning map of a city 314
An unsightly neighbor 316
Where business invades a home district 318
Relation between building line and street widening 319
Reason for establishing a building line 320
What happens in unrestricted neighborhoods 321
Grouping of public buildings desirable 323
Large New York buildings have "setbacks" 325
Big business visions the future 329
A modern vessel terminal 331
A modern convention hall 332
Where multitudes mingle 333
The Bush Terminal, Brooklyn 344

CONTENTS OF ADDENDA

PAGE
Comparison table of depth percentages for valuing residential lots 348
Comparison of depth table for business lots 350
Population of American cities—1920 and 1923 352
Population density of large cities 353
Percentage of home owners in cities 354
Ratio of average debt on homes 354
Bibliography of books on real estate 355
Chain store operators in America 359
Interesting valuation data from American cities 366



©Fairchild Aerial Camera Corp

NEW YORK, THE WORLD'S GREATEST CITY

This remarkable airplane view of New York shows the entire city in perspective, with the Hudson River on the left, the East River on the right, and a portion of New York Bay in the foreground. Lower New York, with its towering skyscrapers, and its well organized shipping interests, are shown in the lower portion of the picture, while Central Park stands out plainly in the central portion of the island. The fourteen great avenues may be seen extending northward from the older portion of the city.

City Growth and Values

CHAPTER 1.

CITIES—THEIR GROWTH

Origin of cities both ancient and modern—Sites chosen originally for defense—American forts developed into cities—City sites were later selected close to supplies of water, fuel and food—Geographical superiority helps towns to grow into great cities—Intersections of land and water routes favorite locations for cities—Canals and river fords have encouraged the springing up of cities—Manufacturing cities thrive close to source of raw materials or near important markets.

Cities are among mankind's oldest institutions. Ancient world history is a record of life in cities. What is known of civilization in ancient times centered invariably around life in communities, so that early civilized life was essentially a city life. Political, economic and social life, as exemplified by the Greek city-states and the Roman Empire, was nothing more nor less than amplified city life.

Ancient writers have described the civilization then existing, and archaeologists searching for evidence have discovered innumerable documents, both official and private, contracts, leases, bills of sale and deeds, all of which prove conclusively that where people congregated for the purpose of residence and trade there developed civilization as modern people know it.

Cities have existed almost as long as the history of mankind. Perhaps not cities in the strictly modern conception of the term, but cities nevertheless. Groups of men, families and servants living in one place, having a common social life, occasionally associating for common defense as necessity required, constituted the earliest towns, the forerunners of cities.

A noted historian expressed the thought in the following manner—

"First of all, an agglomeration of men living in any one place, and second, and what was more important in the ancient world, this group was a unit from the social, economic, and especially from the political point of view."

The earliest cities, towns and villages were built primarily to afford defense against enemies of mankind. This factor, which was paramount in primitive times, has persisted in modern years, so that even today in new countries, towns and villages are established in places best defended in case of attack.

America's forefathers established forts along the Atlantic coast, many of which later lost their martial character and developed into modern cities. Stockades such as Fort Worth, Tex., and Fort Wayne, Ind., were established by early settlers and soldiers pioneering in a wild country, as a means of protection against a common enemy.

Around the Roman camps on the borders of the Danube and the Rhine, and surrounding the Cossack camps in southern Russia, people congregated primarily to be near protection and remained to establish what now are famous cities.

The first protection considered was against wild beasts and still more dangerous men. In some countries villages were built on piles in lakes far from shore. Huts were connected with the land by wooden bridges, so constructed that on alarm they could be readily removed. In Italy exist the ruins of villages built on high mounds of earth in imitation of lake dwellings. These were so constructed to afford defense.

The commonest method of fortification adopted was the wall. Walled villages, towns and cities exist throughout the world. China, in her ancient civilization, found city walls inadequate to properly protect against the Tartar hordes of the north, and as a means of defense constructed the Great Chinese Wall, 2000 miles in length, many miles of which still exist.

London was a walled city. Paris was surrounded in early days by a high wall. Jerusalem was similarly protected. Wall Street, New York, was the original site of a structure of defense for the village.

Problems of defense caused Venice to be located on islands in the bay, Paris on a river island, London in the midst of swamps, Athens around the Acropolis, Rome on seven hills, and Halifax, N. S., on a high promontory overlooking the sea.

Defense against Indian attacks caused the pioneers of the west, exploring the wildernesses of North America, to build stockades at strategic locations around which developed settlements which grew into the thriving cities now situated around the sites of the stockades.

Under the protection of the fort a scattered population seldom gathered within the walls of the fort, but about the walls. Within sight of this protection, settlers tilled their small farms, carried on trade and industries grew up. Village government, always primitive, was exercised under the strict suzerainty of military authority.

Detroit was a border fortress, likewise Cincinnati, Cleveland, Pittsburgh, Albany, Memphis and Winnipeg.

In the modern times, the settler seeking a home locates his cabin to satisfy his fundamental needs for water, fire-wood and food. As a result, many small, widely scattered settlements have grown up in almost all available spots. It is now not unusual for the smallest townships and counties to have from twelve to fifty settlements incorporated into villages or cities with inhabitants numbering from twenty-five to five thousand and more.

Today it is chiefly geographical superiority which renders certain localities capable of developing from small settlements to large cities. Occasionally we have what may be termed a "made" city, such as Gary, Ind., and Long View, Wash., which have been created almost overnight, for a definite business purpose according to preconceived plans of some industrial corporation. Washington, D. C., was established as the seat of government of the United States of America and laid out by Major Pierre Charles L'Enfant in 1791 according to a definite plan. Such cities cannot be said to have developed along natural lines but are artificial in both inception and growth.

For the purpose of further study, the following classification of cities may be considered:

1. Cities established for the purpose of affording defense.

2. Cities located because of some distinct trade advantage.

3. Cities situated near the source of raw materials necessary to their industries.

4. Cities created for political or governmental reasons,—state capitals and the like.

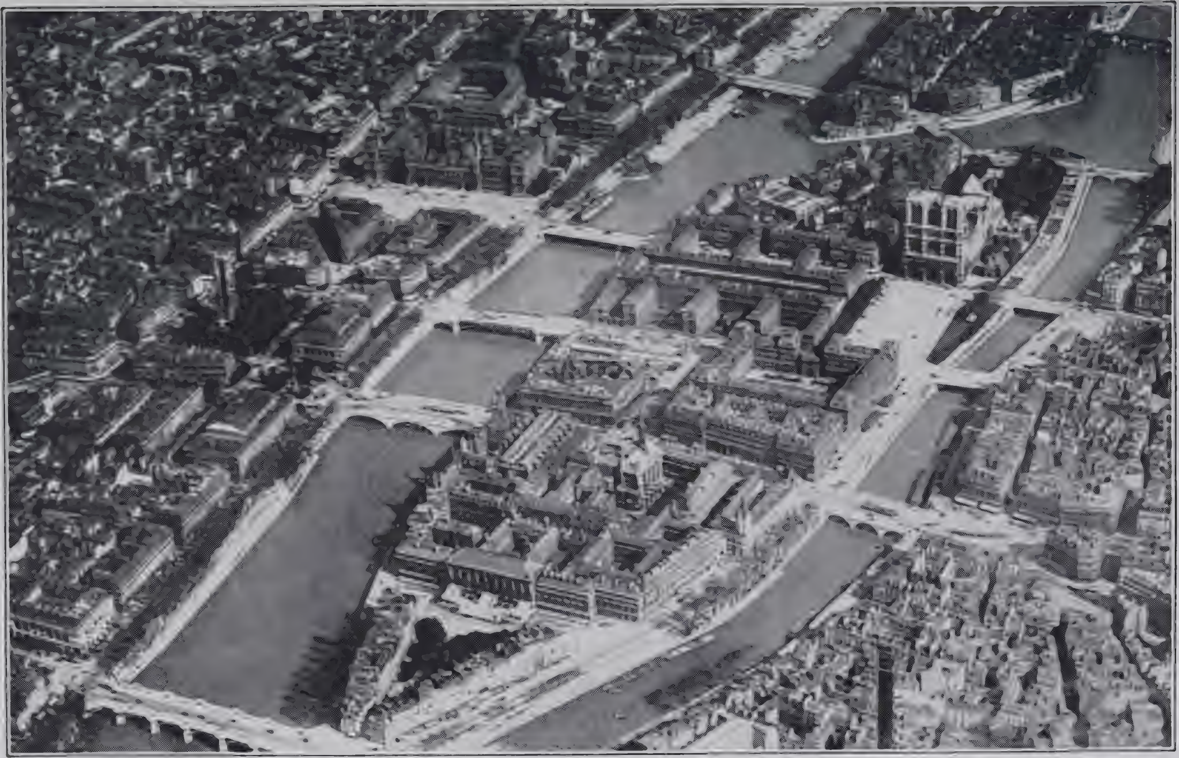
5. Towns, rarely developing into large cities, placed according to mere whim or arbitrary choice on the part of their founders.

Cities for defense came first. In this era of civilization, where use is made of the air in warfare, and where high explosives easily shatter the strongest forts constructed of stone and masonry, this ancient reason for city building is no longer operative.

Fully as important a factor in the historical growth of cities, and most important in the development of the modern city, is the commercial advantage of the chosen site. For this reason cities are placed on the banks of rivers, on the shores of a lake or ocean, especially at the mouth of a river; near rapids and water falls affording water power, and at the intersection of important trade routes whether by land or ocean, road or rail, or by lake or river and perhaps in the future by air.

Trade routes always seek the line of least resistance between the source of the raw materials and the ultimate market therefor. Wherever a trans-shipping point in transportation occurs, there is a logical site for a city. Ocean and lake ports and river cities owe their locations generally to this factor which has had so great an influence on modern civilization.

New York was fortunately situated at the mouth of the great Hudson River. Little did the founders of that city realize that they had selected a strategic location affording easy approach to the productive acres of the middle west, at that time unexplored and undeveloped. It so happens that there is but one topographically easy route through the Appalachian mountains of North America, which was later used by a great railroad for its right of way from Buffalo to Albany, thence down the eastern bank of the Hudson. This has concentrated the flow of export trade from the middle west to this great seaport and has encouraged exporters and importers to ship goods from and to



Copyrighted, Underwood & Underwood

THE HEART OF PARIS

On this little island in 55 B. C., Paris, the pride of France, was founded. The location was chosen because its inhabitants were able to defend it easily from enemies. Later, the city spread in all directions. Today nine beautiful bridges span the Seine River. On the island are some of the finest buildings in Paris.

New York for distribution, because of the direct, easy and ready transportation facilities to northern and western American points.

Bays and gulfs furnish excellent harbors for shipping, and as a result, where other conditions are not adverse, cities have usually grown up on the bank tangent to the innermost curve of the waterline. Such cities are Galveston, Baltimore, Philadelphia, in the United States, and Liverpool, Genoa, Hamburg and Christiania, in Europe.

Ephesus and Utica, cities of the ancient world, were ruined when the sea closed their harbors. Today it is often with difficulty and great expense that the harbors of port cities are maintained. Constant dredging is the costly price of a useful commercial harbor, adequate for ships of the present day.

In the days before steam railroads, important overland transportation generally followed watercourses. In America the pioneer, starting from New York seeking a home in the middle west, journeyed by boat up the Hudson River to Albany, overland to Buffalo, thence by vessel on the Great Lakes to Cleveland, Toledo, Detroit, Chicago, Duluth or some other struggling frontier port. Should he choose to go farther south, his route lay over the mountains to Pittsburgh, down the Ohio River to Wheeling, Cincinnati, Louisville, St. Louis, or even farther southward on the Mississippi to New Orleans. Freight transportation to the interior was effected over the same routes.

It is quite easy, with these facts in mind, to account for the growth of cities like Cincinnati, Cleveland, St. Louis, Montreal, and other communities where water facilities have played an important part in city growth.

Cities frequently originate at or near the mouth of a river where ocean and river navigation meet, as at Philadelphia, New York, New Orleans, Buenos Aires and at the navigable headwaters of rivers where streams flow into or meet to form the river, as at Pittsburgh, St. Paul, Albany, Richmond and Vicksburg.

St. Louis, Cairo and Omaha are located at the junction of two rivers or branches of the same river. So also is Pittsburgh which stands where the Allegheny and the Monongahela rivers converge to form the Ohio.

Louisville is an example of a city growing where a portage of goods became necessary in order to pass river rapids. Often an obstruction to one method of transportation caused the location of a settlement at a point favorable to continuation of transportation by different means. Such cities are Richmond, Ft. Wayne, Syracuse, Evansville, and Toledo.

Ferry terminals are city sites. In a wilderness without roads, bridges and other conveniences of travel, pioneers sought safe and economical fords in rivers. Often settlements grew up on either bank of a river where a ford was practicable as in the case of St. Paul and Minneapolis. So, likewise, villages developed to satisfy the needs of the traveler, where the ferryman plied his flat bottomed craft from shore to shore. For example, Rockford is located at a ford on the Rock River, and Harrisburg had its inception at a ferry across the Susquehanna River.

Canals have frequently encouraged the growth of settlements. The Suez Canal was responsible for the development of the cities of Port Said and Suez. Colon and Panama are important as cities only because of the Panama Canal. Buffalo owed its early prestige largely to the Erie Canal. The Welland Canal has also contributed its share to the importance of Buffalo, Toronto and other Canadian ports, by making possible through lake-to-seaboard transportation. With the growth of steam railroads, canals, other than ship canals accommodating large lake or ocean vessels, declined in importance. Some have been abandoned, and many inland cities located upon their banks, which once were prominent communities, have lost their former importance.

Before rail routes were established, trade routes by land created cities at their intersections, as in Paris, Moscow, Constantinople, Vienna and Berlin. Comparable with these trade routes in Europe are the old American trails where cities grew up at intersections with water routes and other highways.

The foothills of a mountain have often attracted settlers, and where trade routes crossed mountains, requiring in ancient times a change in the character of transportation, towns were formed. In a degree this is true with railroads when division points in mountainous districts are established in order to change engines before and after the pull through the heavy mountain grades. Illustrating the former type are Milan, Augsburg and Turin; Altoona is an example of the latter.

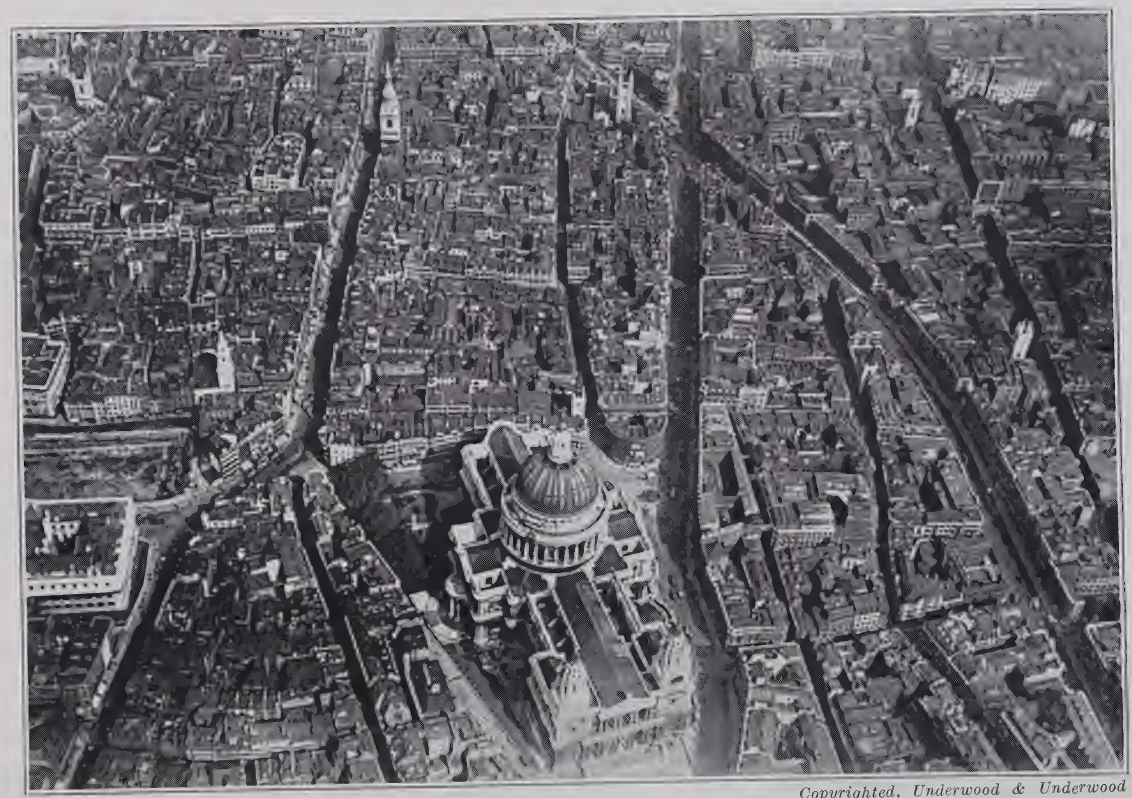
Council Bluffs, Topeka, St. Joseph and Duluth were outfitting points for pioneers over old western trails, just as the Canadian campers of today have stations for outfitting before plunging into the northern woods.

Had modern railroad engineering existed when our transmountain and transcontinental railroad systems were built, the progress and growth of many cities located upon certain existing water routes might have been materially altered. When first conceived, the railroads were seldom considered rivals to water transportation for carrying freight. Railroad lines were built paralleling and following rivers and water courses. Rights of way were established through mountains in the easiest manner, regardless, often, of distance. Routes generally were chosen along water grades as being the easiest and cheapest to construct. Their influence therefore strengthened existing cities located along water courses where such railroads touched.

Manufacturing cities are usually located either (a) close to the source of raw materials, or (b) near a principal market. Extractive industries such as lumber mills, flour mills, iron foundries, smelters and the like, usually locate either close to the source of supply of raw materials from which they manufacture their products, or near adequate fuel supplies, it being the economic meeting point for the assembling of materials.

Pittsburgh is noted for its steel industry, located there not primarily because of the proximity of iron ore although some deposits were found nearby, but on account of the nearness of the coal mines of Pennsylvania, West Virginia and Ohio and because of excellent transportation facilities, both by rail and water. Saginaw, Bay City and Seattle are lumber markets located originally close to large forests.

It may be seen, therefore, that some cities have had their origin at points easily defended, while others have started close to sources of supply of certain useful raw materials. Some cities have been situated at places where trade routes crossed. No one factor can be said to be the sole cause for the origin or growth of a city. It is rather the combination of a number of favorable influences which have attracted settlers who have utilized the natural resources available for the development of commerce and industry.



Copyrighted, Underwood & Underwood

LONDON'S IRREGULAR STREET PLAN

With St. Paul's cathedral as a center, streets in this part of famous old London wander aimlessly about, starting nowhere and apparently ending nowhere. City planners today provide for the future by planning thoroughfares long before they may be needed, creating increment for future years.

CHAPTER 2.

TYPES OF CITIES

Cities classified according to types—Industrial—Commercial—Farming—Political—Illustrations of such types—Historical and geographical reasons for growth—Transition from one type to another—Water faults present obstructions to growth—Marshes are barriers overcome by filling in—Ravines used as rights of way for railroads—How planning of streets helps or hinders growth of a city—Squares and plazas form natural city centers.

Cities may be classified according to the principal occupations of most of their inhabitants. Thus it may be said that a city located on a harbor, whose residents are chiefly engaged in promotion of the shipping industry, is maritime. A city favorably located to the reception of raw materials, where great factories have grown up, may be said to be industrial. One where trade predominates is commercial in character.

It is difficult to draw hard and fast lines of demarcation and thus make exact classifications, for in every city varied occupations are followed and there is an intermingling of all lines of endeavor. Here only predominating characteristics are used as a basis for the following classification:

1. Cities devoted principally to commerce.

(a) Seaports, such as Baltimore, Boston, Galveston, San Francisco, New Orleans and Montreal. New York City combines almost all characteristics but probably should be classified as a seaport since it is the principal shipping point on the Western Hemisphere.

(b) Lake ports, such as Buffalo, Duluth and Port Huron. Cleveland, Chicago, Detroit, Toledo and Toronto represent a class of lake ports whose importance commercially is equaled or exceeded by their position industrially. They are both lake ports and industrial cities.

(c) River Cities, such as Louisville and Memphis.

(d) Railroad terminals and junctions. Such cities are commercial chiefly because of the necessity for transfer of rail routes. Chicago is a good example of a city functioning as a terminal for many railroads. Because the city forms an eastern terminal for great transcontinental lines and a western terminal for eastern lines, it has developed into a commerical city second only to New York City. Here the products of the western states are transferred to eastern rail and lake routes for carriage to the markets of the middle west, and the eastern seaboard, and the eastern products are shipped westward. Indianapolis is a typical commercial city, although it serves its state also as a capital and as one of Indiana's manufacturing centers. Atlanta, Georgia, Springfield, Illinois, and Winnipeg, Manitoba, are other examples.

2. Industrial Cities—those devoted primarily to the manufacture of commodities.

(a) Cities devoted chiefly to extractive industries, such as Saginaw, located near the Michigan forests, having large lumber mills for preparing lumber for the market. Despite exhaustion of Michigan's forests, Saginaw has continued as an important lumber center because of the concentration there of capital invested in the industry. Birmingham, Alabama, which has large and important steel mills operating to convert iron ore and coal mined in the state into steel for industry, and Muskogee, Oklahoma, whose large oil refineries are located near the source of supply.

(b) Cities devoted to manufacturing. This type is dependent upon the extractive industries to obtain and prepare for use the raw materials. Whereas the extractive industries sell only to manufacturers, the manufacturing industries market their product in its final form to jobbers, stores and other distributing agencies. Flint, Mich., is an example of this kind of city, devoted to the manufacture of automobiles.

3. Farming centers—Usually not nearly so large in population as either the commercial or industrial city of the same relative importance. Provo and Logan, Utah; Phoenix, Ariz., and Calgary, Sask., are typically

agricultural cities, located in rich farming districts. Fargo, N. D., and Aberdeen, S. D., are cities catering chiefly to the needs of the farmers of the surrounding country. In this classification belong most of the small settlements of the world. Including these small settlements, this type or classification far outnumbers all others combined. Every country hamlet belongs in this class.

4. Political cities—those devoted to the requirements of national, state and local governments.

Outstanding in this class is Washington, D. C., the seat of the government of the United States. This city was founded for this purpose alone. It has practically no manufactures nor commerce and is not the center of an agricultural territory of any importance. Everything centers about the government. Conditions in Ottawa, Canada, are similar. Columbus, O., and Albany, N. Y., are cities belonging to the same class. The following cities are political in type: Santa Fe, N. M.; Montpelier, Vt.; Annapolis, Md.; Tallahassee, Fla.; Sacramento, Cal., and Carson City, Nev. It must not be assumed that the cities which are political in type have no industry and have no important commercial enterprises. Columbus for instance has a number of important manufacturing plants. Usually cities that are political in character and the seat of the government of the state are centrally located within the state and are served by many railroad systems. Some have in fact become commercially prominent for this reason.

Occasionally a city, whose inhabitants are principally engaged in one line of endeavor, will, by reason of changing conditions, gradually become engaged in another field of enterprise.

Tulsa, Okla., has grown from a small town in an agricultural district to a center for the oil industry, due to the discovery in recent years of rich oil fields nearby. Long Beach, California, has had a similar experience, developing originally as a resort city, and suddenly expanding commercially when oil was discovered.

Cincinnati during the middle of the nineteenth century was one of the leading commercial cities in the middle west. It was greater in size than Chicago, Cleveland or St. Louis, and commanded a great river trade. Later as the use of the Great Lakes developed and steam railroad transportation was improved, other cities arose to rival Cincinnati. Settled by Germans, the brewing industry had become important. Prohibition killed this industry. Cincinnati has declined therefore in relative importance, not by reason of decrease in size, but chiefly due to the advance of certain other cities better located geographically to meet conditions of modern industry and commerce.

In studying the ground plan and general layout of cities, topographical faults, which interfere with free growth in all directions, are first to be noted. Hills, deep ravines, rough, and irregular surfaces, form one kind of fault, while water surfaces, such as rivers, creeks, swamps, lakes and harbors, form another.

Water faults are the most frequent and present many obstructions in the normal directions of the growth of cities. New York City is located upon an island, formed by the Hudson and East rivers. Pittsburgh is on a point where the channels of the Allegheny and the Monongahela rivers converge to form the Ohio River. Minneapolis is built around inland lakes. Likewise, Seattle, Grand Rapids, Cincinnati, Louisville, St. Louis and other river cities can grow, at best, in only three directions. Cleveland, Buffalo, Erie, Toronto, Duluth and Milwaukee have the Great Lakes as boundaries which limit growth on one side. Marshes have limited the growth of New Orleans, Savannah, Boston and Jersey City.

Where the swamp or marsh is not too large or too deep, filling has often made utilization possible. In Lower New York, Beekman Swamp and Collect Pond have been obliterated by fills. The "Back Bay" district of Boston was created by filling in swampy land. The district from Montgomery street east in San Francisco was originally a mud flat. In Cleveland, a large area north of the railroad tracks of the New York Central, between E. 9th and W. 9th streets, has been filled in and passenger steamship docks constructed on the water's edge. Chicago is reclaiming large areas from Lake Michigan. Much of the district from State street eastward was formerly submerged.

Flowing streams of water and deep rivers, lakes and harbors form obstacles more difficult to overcome. Cincinnati, New Orleans, St. Louis and Kansas City have absolute barriers formed by the rivers which border them. All large cities have constructed bridges across the rivers which minimize the effect of the water barrier, notably Kansas City, Mo. and Kansas City, Kan. Often the increased demand for land forces utilization of areas across streams that are not too wide to bridge, and many of the choicest suburban districts have been developed on land separated by rivers or bays from the principal business districts, as in Oakland and other neighboring cities near San Francisco.

The control which a stream exercises, to limit and restrain the growth of a city to the side upon which is located the point of origin depends on width and depth of the stream, the comparative area, topography, and natural advantages of the sites on the two sides of the river, and speculative enterprise.

Cincinnati illustrates the fact that wide and deep ravines are barriers to the uniform growth of a city. Buildings are erected on both sides of the ravine, and where the valley is not too wide or too high, bridges are resorted to in order to continue streets. Frequently in the case of narrow gulleys, long concrete culverts are constructed to permit drainage and fills are made over the culverts, in that way making possible the development of otherwise unusable areas.

Creek beds and ravines, running from an outlying district towards the center of business, have frequently been utilized by railroads and rapid transit systems as rights of way, thus affording cheap facilities for quick transportation from suburbs to business districts. An example of this is the utilization of Kingsbury run in Cleveland for a rapid transit right of way connecting a large suburban area with the center of the city.

Important parts of Syracuse, N. Y., and Hamilton, Ont., were formerly swamp lands. All of Potomac park in Washington is ''made land'' redeemed from the bed of the Potomac river.

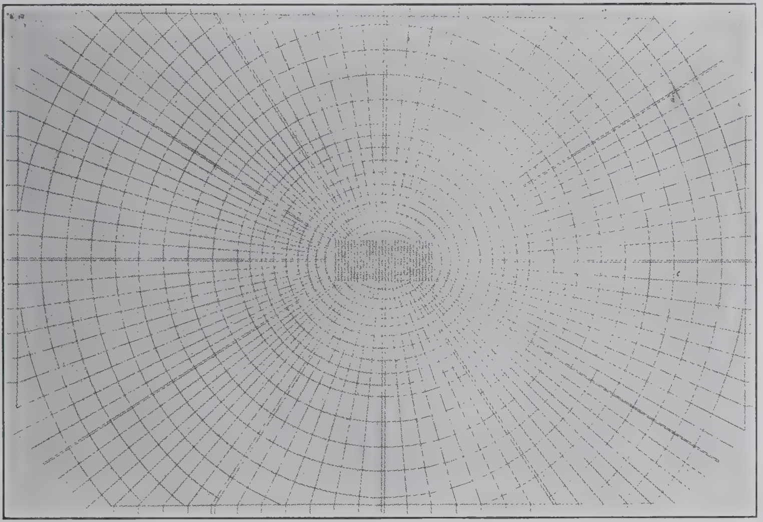
The direction of the principal growth of a city is largely controlled by topography. Cities located on the north side of a bay or river will normally grow towards the north, although for a time they will string out along the shore or bank. Toronto, Detroit and Montreal are examples. Similarly cities on the south line will extend toward the south unless checked by some other topographical feature. Buffalo, Erie and Lorain on the Lakes, and Covington, Louisville and Wheeling on the Ohio River serve as illustrations. The southerly growth of Cleveland was checked by the meandering Cuyahoga river so that contrary to the general principle its growth has been southeasterly and southwesterly.

Some cities have been laid out with streets placed at regular intervals according to a definite plan. In many cities, however, streets are narrow and crooked, haphazard and without direction, usually following the course of an old trail, pike or cow path. Boston is the leading example of such a city. Most European cities are likewise without regular plan. Where cities have been platted rectangularly they are so classified. Where diagonal avenues radiate from a common center or several centers the axial type of platting is followed. Denver is an example of a city platted rectangularly. Philadelphia, New Orleans, and Washington, D. C., are rectangular in plan with axial avenues radiating from centers.

Where definite plans have been adopted for the street layout, as in Washington, Gary, Ind., and Detroit, streets of even width, with parks placed at intervals, and areas planned for building development, are characteristic. Detroit was laid out according to what is known as the "Governors and Judges" plan, by which Grand Circus park, an open space in the shape of a half circle, was selected as one center, and Campus Martius, where the city hall now stands, was chosen as the other. From these two were projected grand avenues, radiating in different directions, and intersected by streets in concentric circles. Later rectangular districts with streets running at right angles were laid out in such a manner as to preserve uniformity of plan.

Old cities which have had a marked modern growth, such as New York, Boston, Athens, and Berlin exhibit the combination of a centre with crooked narrow streets, and contiguous and outlying sections rectangular in form. Rectangular platting, until recent years, has been accepted as the most desirable form of city plan. Many times it is varied with diagonal streets and circular boulevards, and with such variations is still the most acceptable plan for platting cities. Tracts or building lots of rectangular shape are most easily utilized without waste and while not always contributing greatly to the beauty of a city, save many dollars to land owners because of their adaptability for general building purposes.

Some of the older cities originally have had a small rectangular central plan. Growth has made necessary the additions of further areas, which have been rectangular in plan in most instances in conformity with the former layout. Cincinnati and Montreal are examples of this class. Birmingham, Tacoma, Topeka and Calgary, younger cities, have had extensive plans laid out, comprehending much space not needed at the time the city was designed, but which now are being developed according to the original scheme.



SUGGESTED STREET PLAN FOR A CITY

Disregarding topography and other existing conditions, this diagram is intended to illustrate the approximate number and general direction of the thoroughfares of a chief business and community center as proposed by one city planner.

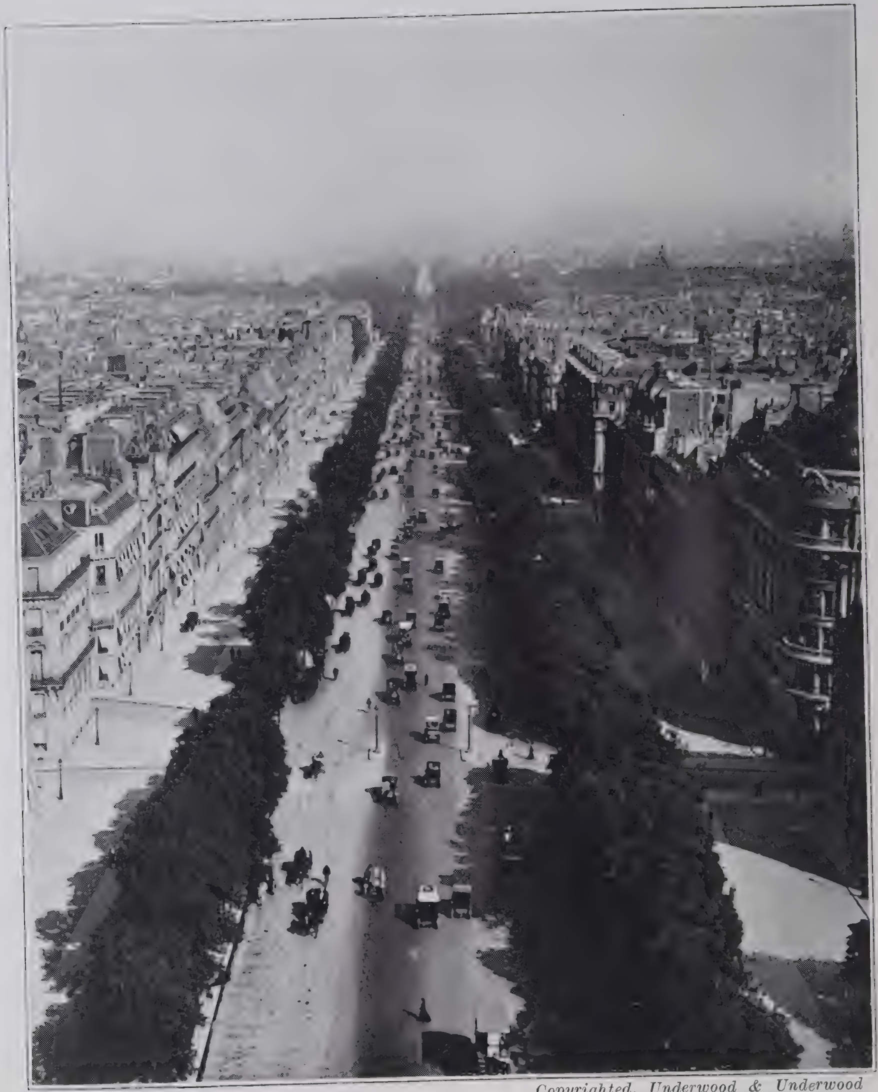
Waterfronts form bases for streets in towns fronting upon lakes, rivers and harbors, while turnpikes or highways serve the same purpose for inland cities. From such bases the rectangular plats develop. In many cities old trails and stage routes have been retained as principal streets.

Irregular platting tends to encourage concentration in central areas, whereas regular platting fosters axial growth; the latter is better for the future of any city inasmuch as it permits ready and quick access to central business districts from comparatively distant points without weaving around crooked and irregular streets. Paris spent hundreds of millions of dollars on a boulevard system and a city plan which to a great degree obliterated many of the street defects in the ancient city. Many American cities have in recent years undertaken at great expense similar changes, all of which could have been entirely eliminated had any comprehensive plan of city layout been adopted before substantial buildings had been erected.

New York presents an interesting city plan due to the work of an early platting commission. North and south avenues were placed 600 to 900 feet apart, resulting in fourteen avenues, while streets were placed east and west at intervals of two hundred feet distant. The chief traffic of the island is now north and south. Despite its well conceived plan more avenues are sorely needed to relieve congestion.

Many cities and smaller towns have been built around public squares. This always evidences a plan adopted at some period for the laying out of the city. Nearly all towns and cities in the Western Reserve, extending from Conneaut, O. to Sandusky, O., and a few miles south of Youngstown, O., were laid out originally with public squares of from two to four acres in extent. Very often city planners of former days, in laying out a town, would plat two streets, intersecting each other at right angles, with public buildings on the four corners of the intersection. Philadelphia is typical of this style of platting, Broad and Market streets intersecting. Canton, Ohio, has intersections formed by Tuscarawas and Market streets.

Whatever the type of city, its best development will come from the utilization of its natural advantages by its aggressive and intelligent residents.



Copyrighted, Underwood & Underwood

THE WORLD'S MOST BEAUTIFUL BUSINESS HIGHWAY

The Champs Elysees is regarded by many as being the finest thoroughfare in Paris. With a beautiful boulevard in the center, lined with stately trees, there are other local channels of traffic fronting buildings at each side. While such a treatment does not improve it as a retail business street, nevertheless it is a most impressive thoroughfare which arouses the admiration of visitors from all over the world, and is typical of the artistic spirit of the great French metropolis.

CHAPTER 3.

GROWTH AS AFFECTED BY SPECIALIZED INFLUENCES

Expansion sometimes due to the development of specialized business such as manufacture of rubber in Akron, motors in Detroit, and furniture in Grand Rapids—Ten important factors govern the growth of such cities—Danger ever present of serious business reaction due to trade depressions—Other cities and towns where single industries predominate—Greater diversification of business advisable—Offering of subsidies condemned—Another specialized influence of growth is that of religion as in the case of Salt Lake City—Southern and western Catholic missions responsible for the founding and growth of many cities—Educational institutions help materially in the building up of their immediate communities.

Growth of some large and important cities has been due to the creative genius of certain men who have established there some new industry which has grown and prospered and has eventually become the chief business around which the industry of the city has developed.

Why is Detroit the center of the automobile industry? Why does Akron monopolize the rubber business? Why, in pre-war days, was Milwaukee famous? Why should the furniture industry make Grand Rapids its headquarters?

Other communities have grown where there are natural advantages which are not available elsewhere. Niagara Falls, N. Y. and the Canadian city of the same name are industrially important because of the water power afforded by the presence of the great natural cataract in the Niagara River.

The phenomenal growth of Detroit, Akron, Grand Rapids and cities of similar character is due to the fact that certain industries were established in these communities when they were small and unimportant. These industries starting inauspiciously developed into larger enterprises and later came to dominate the industrial life of the community, controlling markets and influencing other industries of a like character to seek location there.

In Akron for instance, the rubber industry had its inception through the activities of Dr. Benjamin Franklin Goodrich. Goodrich, a young chemist, started a rubber factory in Hastings-on-the-Hudson in 1867, but as it was not successful, he decided in 1870 to locate in Akron where he began manufacturing rubber products in a one-story building forty by one hundred feet in size. The original plant employed thirty-five workmen. The same plant, grown to mammoth proportions, in recent years had more than twenty thousand employees at one time.

Others became interested in the possibilities of the rubber industry, which in those days was in its infancy. Principally because of the ability to secure laborers possessing a knowledge of working in rubber, Akron was selected by competitive firms. It was difficult to persuade rubber workers to go to other cities, for they feared, if working conditions were unsatisfactory, or if a firm should fail in business, they might be out of employment. Gradually Akron, which offered absolutely no special advantages except that it had an abundant supply of fresh water suitable for rubber manufacture, grew important as a rubber manufacturing city.

Then came the remarkable growth of the automobile business and with it the establishment of factories specializing in the manufacture of tires. The city grew and flourished, real estate values soared, building began on a big scale, yet operators were unable to furnish housing facilities for the thousands of workingmen flocking in to obtain the high wages offered. Thus a single industry monopolized the attention of the city. Concerns manufacturing accessories began to settle in Akron. Machinery used in the rubber industry was made there and Akron now is one of the outstanding examples of a city centered around one industry.

Detroit's experience and growth has been of a similar character. Until 1900 Detroit was a quiet, conservative, residential city, possessing a wide variety of prosperous industries. Several small automobile plants located in Detroit, among them one owned by Henry Ford. Ford had a tremendous struggle to obtain capital, but toiled along, making improvement after improvement in his "horseless carriage" until he conceived the idea of mass production on a single type of small car. The business soon grew to mammoth proportions, and his fame was heralded around the world. Other automobile manufacturers, noting Ford's success, located nearby to make other models of automobiles, influenced by their ability to secure labor skilled in this industry.

As the industry grew, scores of associated industries, devoted to furnishing parts and accessories for automobiles, sprang up, flourished and helped to build Detroit's reputation as a motor manufacturing center. Detroit-made machines became known around the world. Bankers in Detroit financed new automobile enterprises with liberality. Advertising agencies specializing in automobile "copy," located there and soon began sending out propaganda that Detroit led the world in the manufacture of motor cars. Real estate expansion followed, high real estate values were in evidence and fortunes were made in real estate operations.

The influence of super-man industry is illustrated by the experience of Detroit. Henry Ford was not the first to manufacture automobiles but he was the first man to concentrate upon mass production. He conceived the idea of producing an automobile at a price that would make possible its ownership by persons of limited means.

Grand Rapids became the furniture center through a somewhat different cause. The hardwood forests of Michigan for years furnished an extensive supply of raw material for the first small furniture factories which were established there. Furniture could be manufactured at lower cost than elsewhere and in addition an army of skilled workmen was being trained. Factory after factory was established with the result that today even with the passing of plentiful supplies of raw materials, Grand Rapids retains this business prestige and has its regular furniture exhibits, visited by store buyers from all over the country. Styles in furniture are established in Grand Rapids just as styles in women's clothes originate in Paris.

Chief factors in the development of cities prominent in special manufacturing lines, are:

1—Ease in securing capital for financing factory operations and sales. Bankers are thoroughly familiar with the risks of the city's principal business and are willing to encourage and sustain such enterprises when properly conducted.

2—Workmen skilled in the manufacture of the particular product, available in sufficient numbers.

3—Adequate transportation facilities. Transportation company employees in such cities become familiar with handling the particular product in a quick and efficient manner. Through combinations of producers better freight rates are usually obtained and the shipping of goods is taken care of promptly and effectively.

4—Centralization of concerns handling raw materials essential to the industry, so that materials are easily obtainable in any quantities required. Deliveries can be made quickly and at a minimum cost to the manufacturer. Better qualities of raw material are often more available than to the isolated manufacturer at a distant point.

5—Establishment of plants manufacturing machinery and supplies necessary to the industry. Detroit, for instance, has a tremendous line of allied trades where every machine necessary to the production of an automobile is quickly available.

6—Advertising prestige in being located in a city prominent in any industry. Akron tires, Troy collars, Detroit automobiles, and Grand Rapids furniture speak for themselves.

7—Support afforded the specialized industry by local organizations such as Chambers of Commerce, which institutions in such cities are largely dominated by men interested in the principal industries of the city, who have intimate knowledge of the problems involved in the business.

8—Research facilities afforded by centralized industries. Rivalry between large prosperous companies results in the establishing of laboratories and testing departments. New inventions in the industry are eagerly fostered, and inventors honored and compensated when they contribute some new idea for cheapening a process or evolving a new use for the chief products produced.

9—Centralized sales markets. Rival companies join to provide special salesrooms where the products can be best displayed, such as the furniture exchanges of Grand Rapids.

10—Proximity to the source of supply for raw materials used in the business. The growth of adequate railroad transportation facilities diminished the importance of this factor. Akron for instance, is thousands of miles from rubber plantations.

11—The dominant creative genius of certain individuals who have pioneered in certain industries and are thoroughly familiar with the problems presented by each. This perhaps is the most important factor which has lead to the development of cities along special manufacturing lines.

With all the wealth and prestige that comes to the city which is preeminently a one industry community, there sometimes comes, in periods of business depression, a sharp and sudden cessation of prosperity. As the demand for the particular commodity is curtailed, workmen leave the city, seeking employment temporarily in other places where their services are in demand, dwellings become vacant, mortgages are foreclosed, retail business men suffer keenly from lack of trade, land and rental values are demoralized, and other commercial ills follow. While leadership in a certain industry is highly profitable in prosperous times, the dark days of business adversity prove the advantages of diversified industries.

There are many instances of American cities and towns which depend largely upon a single industry for their success and maintenance.

Troy, N. Y. is famous for its output of shirts and collars.

Gloversville, N. Y. is known as the center of the American glove industry.

Lynn, Mass. and other towns in that territory, manufacture large quantities of shoes.

Pittsburgh, Gary, Youngstown, Chattanooga and Birmingham are known principally as iron and steel centers.

The town of Belding, Mich. has its principal interests in the silk industry.

Danbury, Conn. is the hat manufacturing center of the country.

Duluth depends largely upon lake shipping, huge tonnages of ore, grain and other products being trans-shipped to lake freighters during the course of a shipping season.

Minneapolis and St. Paul are known as the flour cities of

America. Flour made in the Minnesota twin cities has a reputation that helps sell it.

Elgin, Ill. is noted throughout the country in the production of butter and dairy products.

Meriden, Conn., long ago established its preeminence as a center for the manufacture of silver plated table ware.

Rutland, Vermont, for years has been known as the producer of high grade Vermont marble products.

The little town of Barberton, O., near Akron, has a reputation as the biggest match producing center of the world.

Tampa, Fla., is known for its scores of cigar factories, located there because of high duties imposed upon Cuban made cigars. This city is the port closest to Cuban raw tobacco markets and has the advantage of being able to obtain many skilled cigar makers from Havana.

Many more instances could be given where towns and cities have grown up and prospered through the development of a specialized industry. While cities should promote the manufacture of special articles which can be more economically produced there than elsewhere, it is also apparent that all cities should strive continuously to build up a diversification of industry. This insures the continuance of important payrolls when anything happens which may disrupt the special business which represents the city's chief source of income.

In their efforts to attract other lines of business, some cities in which a single type of industry predominates occasionally offer free sites as an inducement to new industries. This is a form of paternalism which very often works out to the disadvantage of the industry and the city. Those who advocate it do so upon the theory that infant industries should be nurtured and fostered.

Climatic conditions and the presence of medicinal springs have been important influences in the development of communities, such as Hot Springs, Atlantic City, Palm Beach, Mt. Clemens, Pasadena, Colorado Springs and similar towns of considerable population and importance. Aix-le-Bains, France; Carlsbad, Germany, and Monte Carlo are European examples. These depend upon their natural advantages to bring thousands of visitors annually, who spend large sums of money in the hotels and retail establishments of the city.

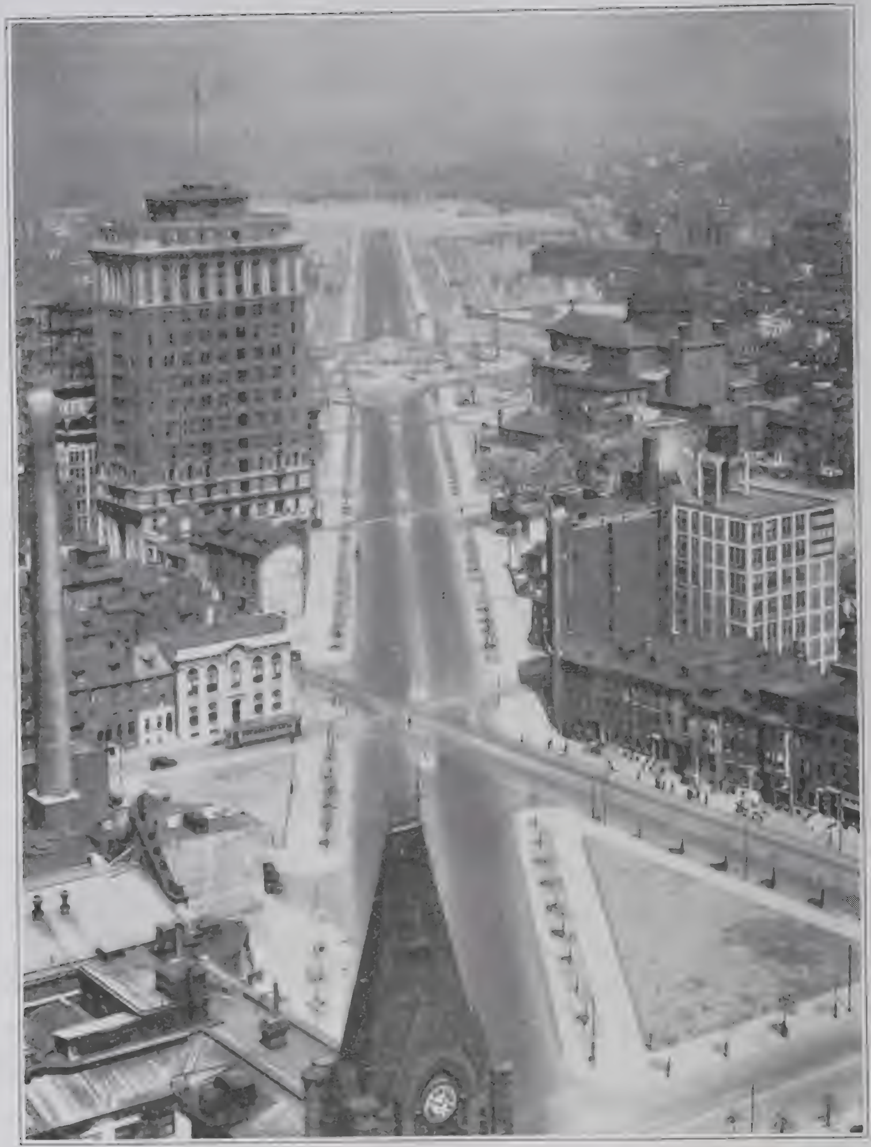
It is unusual for a resort city to have industry or commerce of importance. They exist chiefly to furnish entertainment for visitors and the businesses are established to cater to the needs of the seasonable population. Climate and natural scenic beauty are chiefly responsible for the existence and location of pleasure resorts, while medicinal springs are instrumental in building up health centers.

Religion has been important in the founding and growth of many important American cities. Salt Lake City was established by the Mormons in 1847 and owes its growth and importance to the fact that it is the home of that religious sect. A desert valley was developed into a wonderfully fruitful section which was later aided by the discovery of large mineral deposits in the vicinity. It attracts thousands of visitors annually.

Mission hamlets founded by the Catholic Order of St. Francis throughout California in 1769 and thereafter led to the development of the cities of San Diego, Los Angeles, Santa Barbara and San Francisco. The earlier missions also grew into importance in the states of Florida, Louisiana and Texas, and were responsible for the founding of St. Augustine, San Antonio, El Paso and other important southern communities.

Occasionally a town will be found which has been made to order to accommodate some religious sect. Zion City, near Chicago, home of the Dowieites is an example. Benton Harbor, Mich., has doubtless benefited to some extent and gained wide notoriety through the proximity of the converts of the House of David.

Educational institutions have been instrumental in creating and maintaining new towns. Many universities of note have been established in mere hamlets which later have grown to be places of size and importance, because of the stimulus to growth afforded by the presence of large numbers of college students. Berkeley, Cal., and Ann Arbor, Mich., are among many examples of this class.



PHILADELPHIA LOOKS TO THE FUTURE

Millions of dollars have been spent by Philadelphia in condemning land and constructing Fairview Parkway, a diagonal street which will greatly relieve the city's traffic problems, and open up new districts for residential and business uses. American cities are spending colossal sums for new highways which should have been constructed or planned much earlier.

CHAPTER 4.

TRANSPORTATION FACILITIES

Development of transportation facilities—Effect on urban growth and land values. Interurban lines tend to decentralize residential districts. The automobile has revolutionized transportation. Outlying land values respond to newer forms of transportation, particularly the motor car. Use of auto trucks obviates necessity of railroad sidings for many industrial concerns. One way traffic streets and their effect on business. Parking problems becoming acute.

Methods of transportation, the means by which both commerce and people are carried from one place to another, have developed with every generation. In the olden days, saddle horses and stage coaches were the only means at hand. Then, as better roads were built and cities took on a more metropolitan character, carriages and the horse car made their appearance. In the nineties electric street cars were first put in operation. The early years of the present century saw the birth of the "horseless carriage," countless improvements of which have developed the modern automobile. Then came the aeroplane, which is just beginning to prove its worth as a carrier of mail and in providing ultra-rapid passenger service between large cities.

This history goes hand in hand with that of large cities. The development of these means of transportation has been the prime factor in the evolution of suburban life, the decentralized residential districts and the outlying and far flung business communities which characterize the modern city. But they have not only affected the physical aspects of cities, but their growth as well and in so doing have increased many fold the value of urban real estate.

Street car transportation even when horses provided the motive power, furnished the first marked effect of local transportation upon growth and property values. Cities were enabled to expand, new residential districts grew up, which, with the availability of transportation facilities, combined choice scenic locations and desirable homes with access to the existing business district. The electric car did not change the character but merely enlarged the scope of development. Radial arteries in every direction were first used for street car lines and this caused a star-like growth. Then with the advent of cross town lines the hollows were rounded out, and new business centers came into existence at the intersection of radial and cross town lines.

Larger street cars carried an ever increasing volume of passengers. The distances of new developments from the business districts increased, until the larger cities, New York, Chicago, Philadelphia, and Boston met the demands of a constantly increasing population by overhead transportation in the form of elevated railways, the marvel of a generation ago. Scientific development then brought the subway, with its trains traveling at a speed of from forty to sixty miles an hour.

Interurban lines linked up the cross road center with the city proper, and it became a suburb. Steam railroads opened commutation service between the large city and the country villages for miles around. And the net result—one of America's typical big cities having a main business district, such as the "Loop" in Chicago; the Battery in New York; Euclid Ave. and East 105th St. in Cleveland; decentralized residential districts spread over huge areas affording sunshine, trees, and pure air to thousands. Suburbs by the hundreds grew up. Germantown and Camden reflecting the glory of Philadelphia are typical. Such is a picture of a characteristic metropolis.

The effect of such expansion with its attendant creations of new business must be obvious. In the opening of outlying districts for residential purposes the subdividers reaped their harvest. In the growth of sub business centers, persons who owned contiguous property became wealthy. Land values soared, and the change is yet so recent that values in many places have not had time to fully readjust themselves.

More powerful in its influence and more widespread in its effects than the street car, however, was the entry of the automobile into general use. The passenger automobile itself has played a large part. It has furthered the suburban idea and has been the permissive factor in a more general and uniform growth. Where the interurban created small communities and strings of hamlets along its right of-way the automobile has attracted home builders to every accessible place and many that are seemingly inaccessible. This general use has also led to a demand for good roads and today mile after mile of pavement evidences the response. The entire country-side is man's back yard. The farmer has been brought closer to the city dweller, and they have now a few interests in common.

HOW WILL BUSSES AFFECT STREET CARS?

Comfortable auto busses, carrying thirty or more passengers, now operate out of all large cities throughout the country. In the fall of 1923, busses served 108 cities, and many hundred towns. Fifty-six street car companies transferred passengers from surface cars to their own bus lines for transport to more distant points. Over 12,000 schools made use of busses. Fifty railroads were using them as adjuncts to their train service.

The motor truck has affected chiefly the manufacturer. Those who have localized markets, even up to several hundred miles in radius, deliver exclusively by truck, the expensive short railroad haul being obviated. Many manufacturers find it cheaper to use oil or electricity for fuel and to haul raw materials by truck.

Thus railroad frontage loses its prime importance. Cheaper land which is undesirable for any other purpose becomes more valuable for factory sites and there is a resultant saving in money.

UNION STAGE DEPOT
PICKWICK STAGES
UNION STAGE DEPOT
WHITE BUS LINE
PICKWICK STAGES

NOW THE BUS CONDUCTOR CRIES "ALL ABOARD!"

Terminals for bus lines are appearing in many cities. Probably the first regular terminal established was in Los Angeles, where the country for miles about is served with hundreds of busses.

Lately the motor bus or stage has appeared as a competitor of the street railway and the interurban. Already many cities both large and small have bus lines which link up every community for miles around, and many predict that a decade hence will see the end of short haul traffic on the interurban, while others foresee the day when surface cars will have given way to palatial busses.

The effect of this development has merely been the furtherance of that caused by the automobile. Now, the man of small means can also live in the country, fifteen, twenty, twenty-five miles from his work, and travel to and fro on a bus line, many of which maintain twenty and thirty-minute schedules.

The immense increase in vehicular traffic has and will require the widening and straightening of many streets. Land will be appropriated, small irregular parcels and wedges will be left, which for their size alone will be valueless, but for the rights they carry with them will be worth large sums. With the widened and improved streets, traffic will increase, the value of abutting property will be enhanced. Streets which are favored by motorists as avenues of travel first attract garages and sales agencies, then accessory stores and kindred businesses develop and finally retail stores of a general character establishing firmly the business character. For instance, Carnegie Ave. in Cleveland, is even now in the period of such a transition.

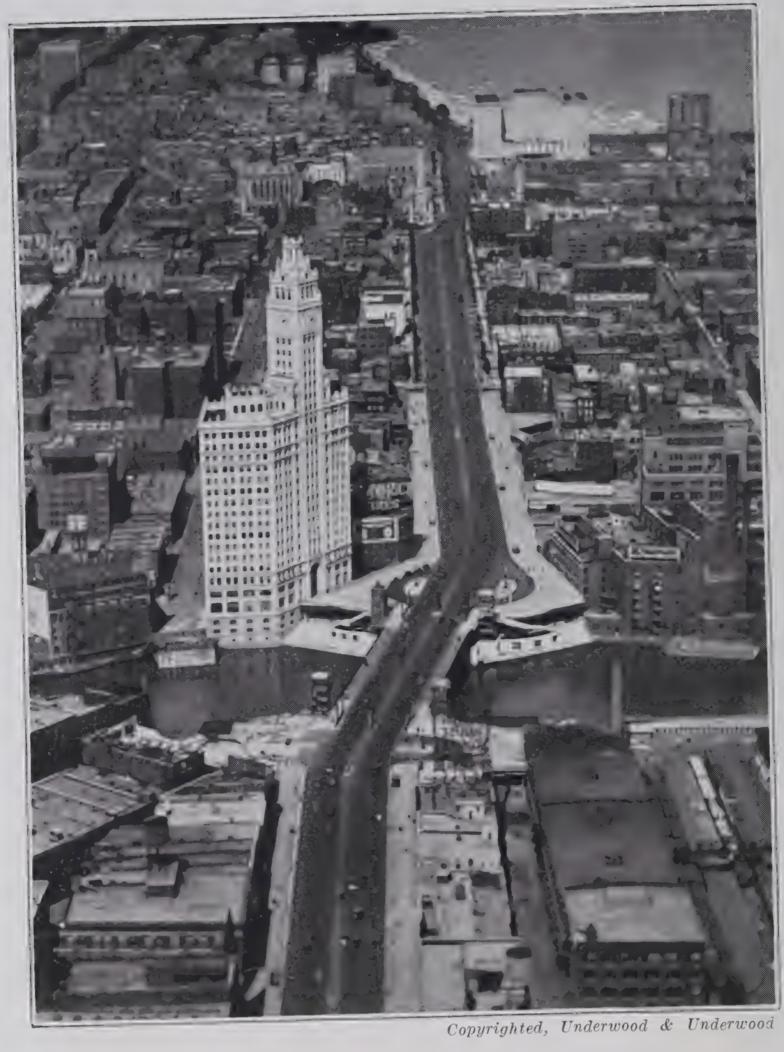
All large cities now have traffic ordinances, unheard of fifteen years ago. On some streets, parking is restricted, on others absolutely forbidden. Heavy and slow moving traffic is confined to certain streets and there are those who are advocating one way streets.

The solution of the traffic problem depends greatly upon what regulations can be worked out controlling parking of motor vehicles. To prohibit parking would work a great hardship on store keepers and merchants many of whom are even now complaining that they are losing trade because of the inability of their customers to find parking places.

In considering its effect on land values the solution is more important than the problem. Many have been advanced. The day may come when large down town stores will have their own parking spaces in the basement or on the roof of the building. Several large buildings of this type have already been constructed, a store room being omitted on the street level to allow a ramp to extend down into a basement garage. It has been suggested that centrally located parks may be utilized, by building large parking spaces beneath them. The lower level would be reached by ramps which would be hidden from view by proper landscaping.

To conjecture what the solution of these problems will be and what correlative effect such solution will have on land values is interesting. It is entirely within the realm of possibility and many believe that the solution will be found only in broader decentralization, when down town sections will be made up largely of banks, office buildings, hotels, restaurants, and a few small shops, while larger retail enterprises such as department stores, specialty shops, and similar lines of retail trade will move to the outlying business districts.

Whatever the solution is, it must be apparent that it will affect the volume and the type of traffic in any given locality, and it is that which creates and determines land values. One cannot vizualize what traffic conditions will be ten, twenty or thirty years from today. Certainly there will be further development. The automobile may go further; what the aeroplane will do is problematical; but the man of vision will study every development, will analyze every solution suggested, for they will have a very definite relation to the use and the value of land.



Copyrighted, Underwood & Underwood

A "MAJOR OPERATION" IMPROVED THIS STREET

Michigan Ave. is Chicago's natural main artery leading to the north end. As far north as Randolph St., is a broad boulevard, but there, until a short time ago, it entered a "bottle neck," congesting traffic and preventing business growth. Chicago, at vast expense, widened the thoroughfare until today it is one of the finest in the land. Above may be seen the greater portion of the section which was widened south and north of the Chicago River.

CHAPTER 5

STREETS AND HIGHWAYS

Streets afford accessibility to land. Width and layout in relation to the main business center important—Many cities like Topsy "Just Grew"—Thoroughfares, secondary highways and residential streets all have their functions—Streets should have varying widths, with thoroughfares from eighty-six to one-hundred feet in width. Diagonal streets useful in distributing traffic—Size and growth of cities limited by street facilities—Initial elements of growth dependent in part upon streets—How business growth will sometimes turn a corner—The cause of "one street towns" with their accompanying "gold strip" retail districts—Greater care should be taken in planning for future growth to see that adequate streets are provided.

Streets are the arteries of a city making accessible the lands lying within its borders. Without streets to make possible the use of property for business and commercial purposes, cities could not exist.

Communities established in ancient times provided streets by which their inhabitants could travel from place to place. Their importance to the settlement was early recognized and the right to their free use for the benefit of all zealously guarded.

With the development of modern civilization and the establishment of private ownership of land, streets and highways have become increasingly important. The farmer required roads over which to haul his crops to markets where he could exchange them for other necessities of life. The townsman needed streets to afford him access to the homes of his neighbors and the shops and stores of tradesmen who furnished him with requirements of his simple life.

Centering around crossroads, hamlets grew from a few scattered houses into villages having small stores fronting upon the main highways with houses clustered about to suit the whim of the builder. As the village developed and population increased, secondary streets were laid out to provide locations for the homes of citizens who were either unable to acquire land upon the principal highways or from choice, preferred lots upon which to build aside from the currents of travel.

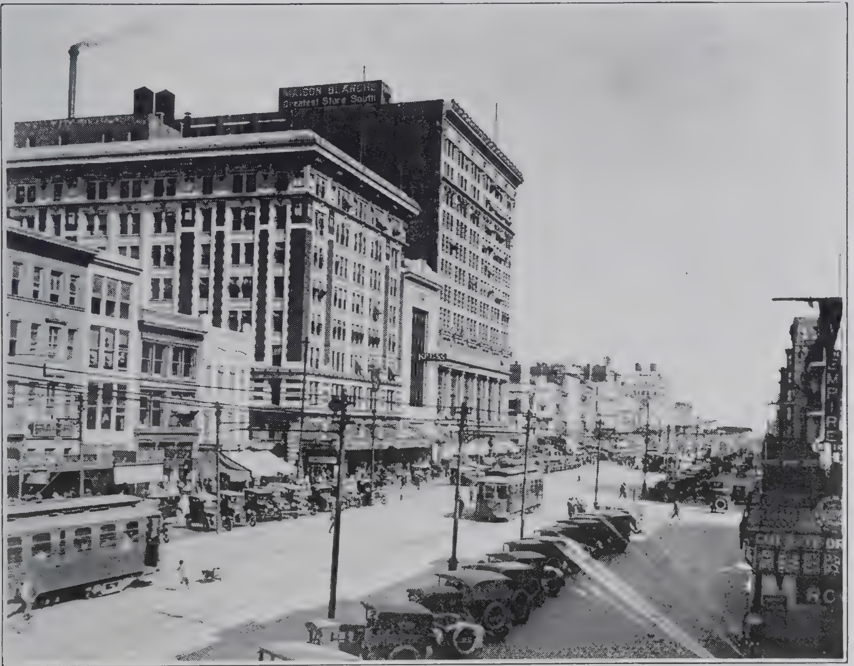
Villages became towns and towns became cities. More streets were necessary to accommodate the increasing population and make possible travel from place to place. Streets were originally laid out to accommodate two kinds of travel, pedestrian and that afforded by horsedrawn vehicles. Only a few owned horses and vehicles and their use was generally limited to the absolute requirements of business. Some, it is true, enjoyed a ''coach and four'' or a ''one horse shay'' maintaining their equipage solely for pleasure. Under such conditions, where streets and highways were never taxed to capacity, wide thoroughfares were unnecessary.

Indian trails and cow-paths with a little widening functioned admirably as city streets and were adequate to accommodate all the traffic of the day.

It is estimated that from twenty to forty per cent of a city's total area is given over to streets. The advent of the automobile brought with it new and puzzling problems in regard to streets, their width and their layout in relation to the main business center, and other sections of a town or city. This new medium of transportation has placed unlooked for burdens upon the streets of expanding communities, and much attention is being given to their planning and development.

Most cities, like Topsy ''just grew.'' Such a thing as a city plan was unheard of when most American cities of today were founded. Streets were opened as the demand made itself apparent. Indian trails, cow-paths and natural arteries of travel were followed as the country about the struggling village or town was absorbed for business or residential purposes.

The need for wide, ample roadways is seldom felt in the small community, consequently comparatively narrow streets are usually laid out, with the exception of the main thoroughfare, which is sometimes of adequate width. With the exception of this principal artery little is ever done in the small town towards preparing for future growth. Subdivisions are opened from time to time as the demand is apparent. Sometimes the new streets are linked up with existing ones, but more often they follow a plan all their own. It later becomes necessary to make awkward jogs in proceeding along streets in almost any direction. Only by accident do the street plans of most cities offer anything like an adequate solution of the traffic problems now encountered.

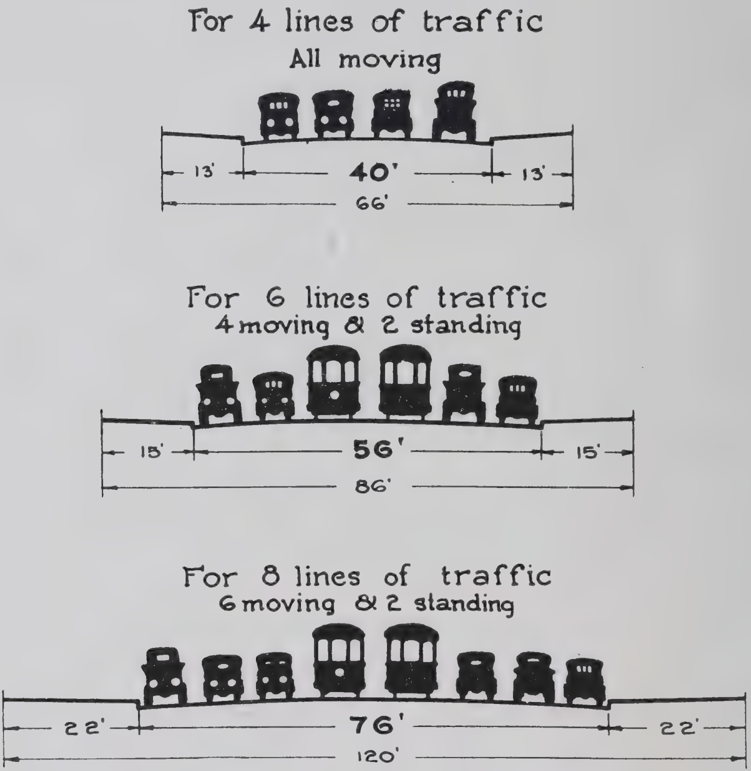


AMERICA'S WIDEST BUSINESS THOROUGHFARE

Canal Street, New Orleans, is 185 feet in width, and accommodates eight street car tracks. Formerly an open canal ran down the middle of the street with roadways at each side, which accounts for its unusual width. There are many important retail business establishments on each side, but it is significant that comparatively few persons cross from side to side to conduct their shopping on account of the increasing danger from street car and automobile traffic.

Few cities foresee future greatness. When public buildings are planned they are notoriously inadequate a few years later. So with the street systems which have been devised in the past, and from which cities for the most part suffer today.

Experts in city planning, after years of study, both theoretical and practical, declare that there should be at least three classes of streets; namely, main thoroughfares, secondary highways and residential streets. Main thoroughfares should give access to all parts of a city. Secondary highways should furnish access to minor business and industrial sections, and residential sections. and residential streets should be designed to give entry into those parts of the city devoted exclusively to homes.


For 4 lines of traffic
All moving
13'
40'
13'
66'
For 6 lines of traffic
4 moving & 2 standing
15'
56'
15'
86'
For 8 lines of traffic
6 moving & 2 standing
22'
76'
22'
120'

STREET CAPACITY AS REPRESENTED BY WIDTH

Traffic conditions in cities are necessitating the widening of many thoroughfares. Here may be seen the advantage of a wide street as against a narrow one, insofar as vehicular traffic is concerned.

Recognizing the growing importance of wide streets, legislation has been enacted in some states and cities regulating their width. In many cities streets of a width of less than fifty or sixty feet will not be accepted for dedication. In the province of Ontario, Canada, the legal width is sixty-six feet.

It now is generally recognized by students of the subject that streets should have various widths. Main thoroughfares, which extend out far beyond a city's limits should in many instances be 100 feet wide. Secondary highways should be from fifty to seventy feet wide, while purely residential streets may be as narrow as thirty feet, with reasonable set back regulations for dwellings.

Main thoroughfares on which street car tracks are located, should according to one authority, be not less than eighty-six feet. This permits a clear fifty-six foot roadway; provides space for double car tracks in the center, a line of moving vehicles on each side of the car tracks, and a row of standing vehicles at each curb. A 100 foot roadway will allow two rows of moving traffic on each side of the car tracks, with a line of cars standing at the curb.

As long as trolley car systems exist, there must be tracks provided. Cars on heavily traveled roads and downtown streets slow up other vehicular traffic to a great extent, because they must stop at almost every corner. Where trolley lines are to be installed, roadways of at least 100 feet in width should be provided. In New York City where there are many narrow streets, and where it was formerly the practice to permit double car tracks on streets only thirty or thirty-five feet in width, the rule has been changed so that now no car tracks may be laid on roadways of less than forty feet.

Where there must be car tracks on a city street, it is much better to have them in the center of a roadway than one at each side. In the latter instance, every vehicle entering the main thoroughfare from a side street must cross a car track with its attendant dangers. If the tracks are in the center of the roadway traffic bearing to the right is not endangered.

Many cities throughout the country are spending large sums, or are planning such expenditures, to provide thoroughfares for automobile travel on which there shall be no street car lines. Main highways, extending out into the suburbs and open country beyond are being widened to 100 feet, to provide against congestion of vehicular traffic.

The opening of diagonal streets from the center of a city to its circumference is urged as a means of giving ready access from the downtown sections to the residential areas. Some cities are fortunate in already possessing such thoroughfares. Chicago has Milwaukee, Lincoln, Ogden, Blue Island, Archer, and other avenues. Detroit has Jefferson, Gratiot, Woodward, Grand River and Fort street. Cleveland has Superior, Euclid, Prospect, Woodland, Broadway, W. 25th St., Lorain, and Detroit avenues. In each of these cities, as in many others, these main outgoing thoroughfares do much to relieve traffic congestion by conducting it quickly to the farthest points of a city.

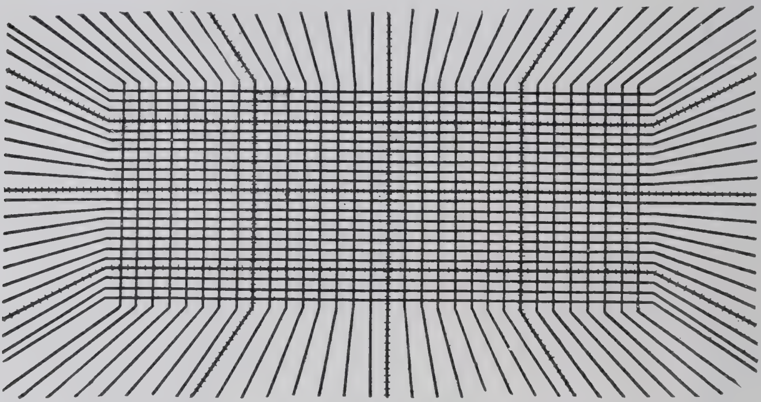


DIAGRAM ILLUSTRATING THE ADVANTAGE OF THRU TRAFFIC ROUTES AND OF A RECTANGULAR LAYOUT OF THE CHIEF BUSINESS AND COMMUNITY CENTER IN THE DEVELOPMENT OF RAPID-TRANSIT ROUTES

Rapid-transit routes are indicated by the ribbed lines

Lack of facilities to transport people and goods from one part of a city to another definitely limits its growth. It does not seem improbable that several cities in this country fifty years hence may have populations of three, five, eight, or even ten million people. One can readily anticipate the tremendous real estate values which will ensue if local transportation problems can be properly solved.

Railroads and highways constitute the main structural framework about which the modern city is built. Equally important as the railroad today are the vehicular highways leading into growing communities. Where a roadway, adequately paved, enters a city, a factor of growth immediately projects itself, particularly if such a highway connects with another city of equal or greater importance. In addition to often serving as a right of way for an interurban line, the thoroughfare is also frequently the main line of inter-city communication by automobile, an element of increasing importance from year to year. For short hauls between cities motor trucks are superseding the service of railroads which now pay attention more and more to the long haul business.

These main arteries often attract retail establishments with a resultant increase in land values. Many investors watch carefully the growth of towns and cities, and at an early date acquire advantageous locations for business, either holding or improving the sites with buildings as conditions warrant. ''Taxpayers'' and gasoline stations may be found every few blocks, later being replaced with stores as land values increase, and the economic need manifests itself. These main highways leading from growing towns and cities are fertile fields for investment, and should be keenly analyzed by the investor who is seeking profits from real estate.

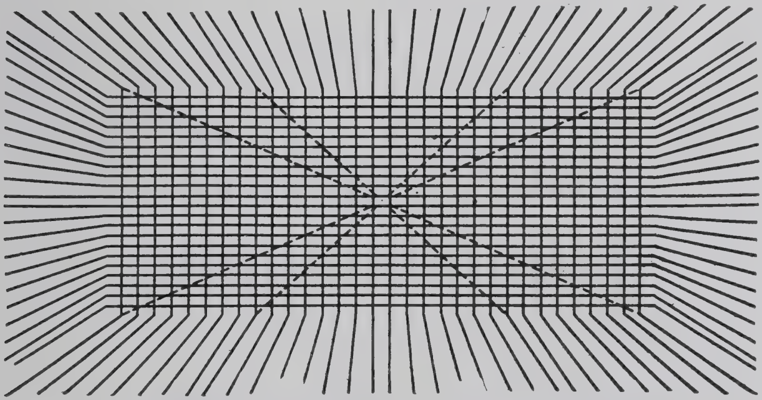


DIAGRAM ILLUSTRATING THE DISADVANTAGE, FROM A TRAFFIC STANDPOINT, OF SUPERIMPOSING DIAGONAL STREETS ON EXISTING RECTANGULAR SYSTEM IN CENTRAL BUSINESS DISTRICT

Bordering main outgoing highways subdivisions develop where the inhabitants of the growing community take up their residence. With an electric line, or bus service, not to mention the pavement itself on which vehicular transportation can be had in any form, the areas bordering these highways soon attract the realty operator who is seeking to provide home sections in which people may live. They pass from plain agricultural lands to gardening and trucking patches, and then blossom forth as subdivisions, with all of the improvements which are called for in these days of real estate development. Land is bought as acreage, laid out into streets and building lots, and often sold at a substantial profit.

In the heart of a growing village or town, there soon becomes evident a trend of growth in which land on one particular street becomes popular for business locations. Sometimes this is prompted by the erection of a general store or hotel, and the clustering about it of other businesses eager to be as near to the center of business as possible. Soon there are new buildings, housing an assortment of trades, growing in number as competition in business appears, and the buying power of the community develops.

TREES PLACED BETWEEN CURB AND SIDEWALK

Sometimes retail business will take an abrupt turn at an angle, and proceed in another direction. This may be due to some property owner asking an exorbitant price for land on an opposite corner to which business normally would extend. Instead of going across a street, an enterprising merchant will move around a corner, and pioneer for a time, to be followed by others as soon as he demonstrates that business can profitably be conducted there. Growth of business in this manner has been diverted many times and started in new and unexpected directions, to the distinct detriment of property owners whose land may have been in the natural pathway of expansion.

TREES PLACED INSIDE OF SIDEWALK

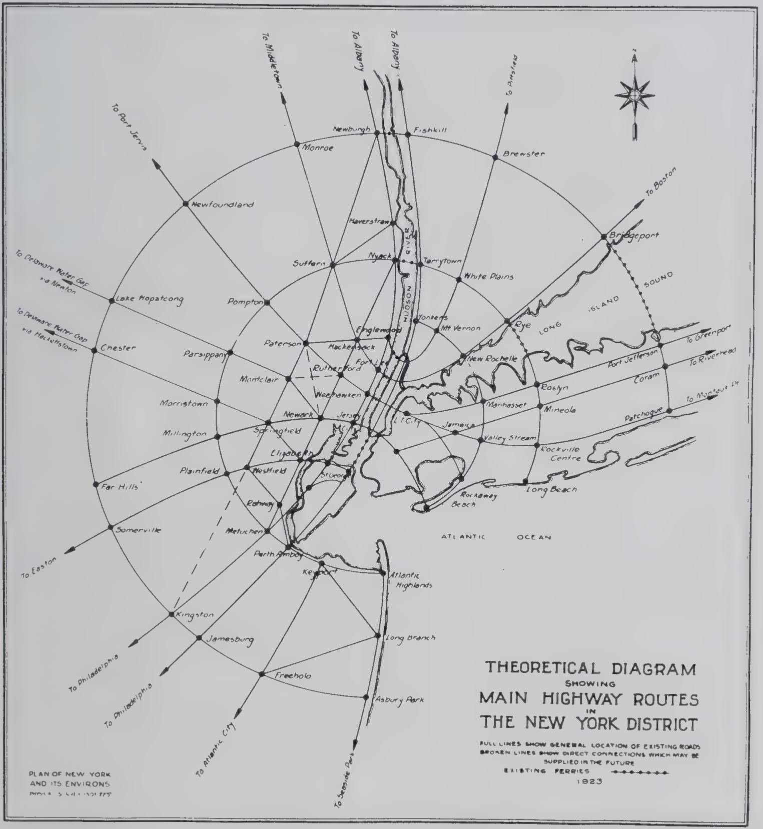
These streets are of exactly the same width, but due to the manner in which the trees have been planted they appear different. In order to give spaciousness and afford better street lighting facilities at night, it is recommended by one authority that trees be planted inside of sidewalk lines.

Many communities suffer from the reputation of being what are known as "one street towns." While there is usually one thoroughfare which stands out as the main business artery, nevertheless it is better for a town to have its business district border on several streets, especially as it grows in size. These one street towns have what is known in real estate parlance as a "gold strip'' where abnormal store rentals are demanded, and readily secured from a certain class of retailers, who are always looking for ''one hundred per cent locations.'' This drives less prosperous merchants to unimportant side streets or out of business altogether. ''One street towns'' certainly are not desirable. If possible, growth should be so directed as to prevent development along one street. It is better to have several such busy business thoroughfares where rentals may be stabilized, and customers, as well as merchants, may escape unreasonable rental charges arising from congestion of traffic. Los Angeles, as a large city, and Springfield, O., as a small one, are examples of communities which have escaped development on a single main street.

Few cities are designed in an ideal manner. If they were, they probably would all have main thoroughfares at least 100 feet wide leading out of town to imaginary boundaries miles away. Small towns and cities should give earnest attention to correcting natural disadvantages as early as possible, acquiring land for widening main thoroughfares, and opening cross streets where needed. Millions upon millions of dollars in future land increment could be created at comparatively small expense when land can be acquired at modest prices for the opening of streets. Chicago, Cleveland, St. Louis, Philadelphia, and other large cities have spent vast sums correcting unfortunate mistakes or omissions in street extensions, which could have been rectified at small expense if the task had been undertaken earlier.

Every small city, if it has not already done so, should invest in some sort of a city plan. It would pay a group of investors or property owners to provide a town with such a city plan, for it will bring vast increment in values if intelligently followed. It should be considered not only in the light of present day growth, but the plan should look forward fifty years to a time when the community may be a great city, when land values instead of being a few hundred dollars a foot may mount into the thousands.

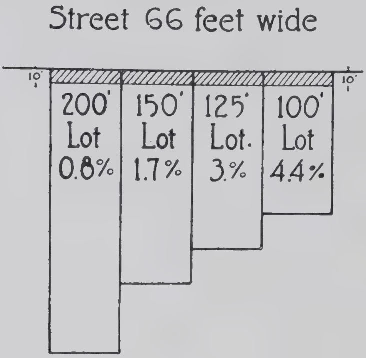
One may build a summer cottage with a few pieces of lumber, a hammer and some nails, but when a fine residence or an office building is erected a careful plan is made by an expert, duly considered and religiously followed. The cottage is worth about what the material costs, but the care with which the work has been planned and executed adds much to the beautiful home or office building.


To Middletown
To Albany
To Albany
To Pittsfield
To Port Jervis
To Boston
To Delaware Water Gap via Newton
To Delaware Water Gap via Hackettstown
Newburgh
Fishkill
Monroe
Brewster
Newfoundland
Haverstraw
Bridgeport
Suffern
Nyack
Tarrytown
White Plains
HUDSON RIVER
Lake Hopatcong
Pompton
Yonkers
Mt Vernon
Rye
LONG ISLAND SOUND
Chester
Parsippany
Paterson
Hackensack
Englewood
Fort Lee
Rutherford
New Rochelle
To Greenport
Port Jefferson
To Riverhead
Montclair
Weehawken
Coram
Roslyn
Morristown
Newark
Jersey City
L I City
Manhasset
Mineola
To Montauk Pt
Millington
Springfield
Jamaica
Valley Stream
Patchogue
Elizabeth
Rockville Centre
Plainfield
Westfield
St George
Far Hills
Rahway
Rockaway Beach
Long Beach
Somerville
Metuchen
ATLANTIC OCEAN
Perth Amboy
To Easton
Keyport
Atlantic Highlands
Kingston
Jamesburg
Long Branch
To Philadelphia
To Philadelphia
Freehold
Asbury Park
To Atlantic City
To Seaside Park
THEORETICAL DIAGRAM
SHOWING
MAIN HIGHWAY ROUTES
IN
THE NEW YORK DISTRICT
FULL LINES SHOW GENERAL LOCATION OF EXISTING ROADS
BROKEN LINES SHOW DIRECT CONNECTIONS WHICH MAY BE SUPPLIED IN THE FUTURE
EXISTING FERRIES
1923
PLAN OF NEW YORK
AND ITS ENVIRONS

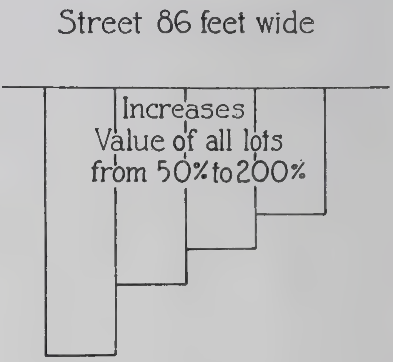
DEVELOPING A MAIN HIGHWAY PLAN

Surveys are being conducted in large cities to determine the extent of traffic congestion and methods for its relief. Here is a study of the highway system about New York City, and the way in which it is to be developed.

Money will be made and wealth realized in those cities where care is taken in building for the future. Land values do not grow in a haphazard manner, but according to definite relations existing between cause and effect. The real estate operator should be one of the first to realize this, and if he has any foresight beyond the idea of the mere accumulation of profits he should be in the vanguard in the matter of helping his city grow according to a plan which will provide adequate street facilities for future needs in an intelligent manner.



Shortening a lot reduces values as above.

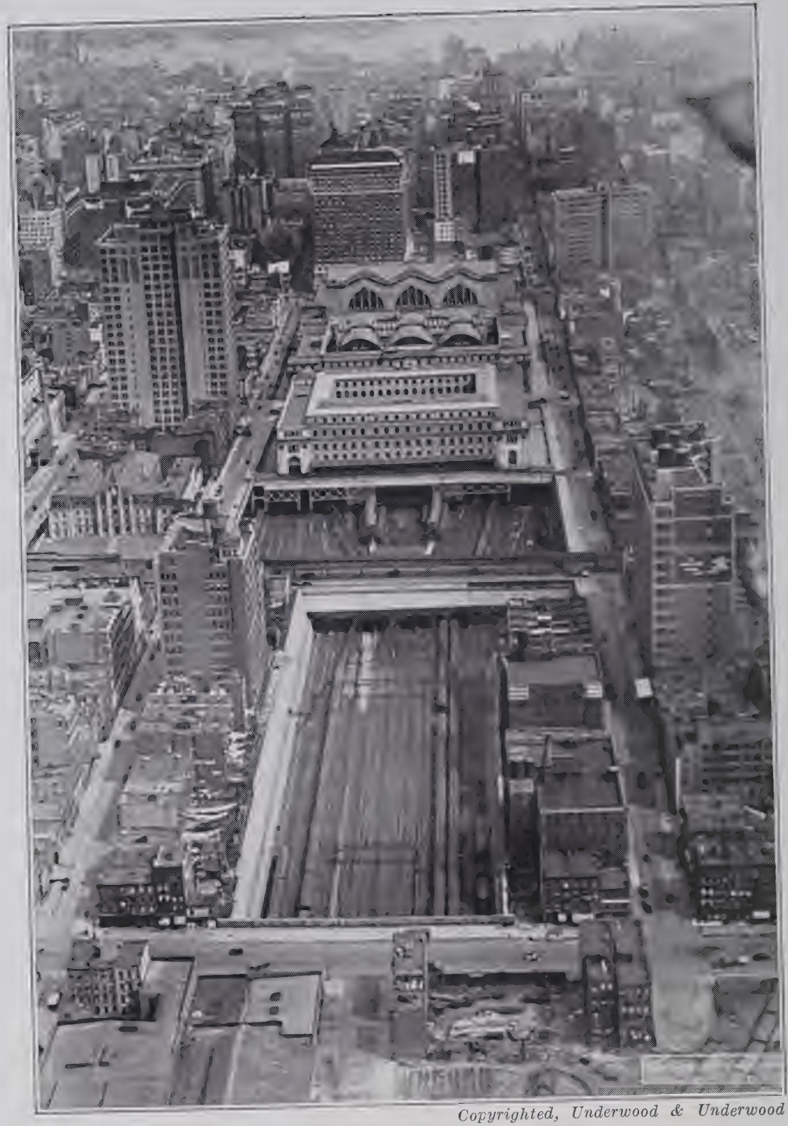


Widening street 10 feet on each side increase all values as above.

PROFIT AND LOSS IN STREET WIDENING

The average owner can give land required for street widening, and reap substantial profits on his gift. This is a matter of great interest at this time inasmuch as many cities are taking steps to widen streets to accommodate automobile traffic. Unless lots are very shallow the land which is taken may be considered as coming off the rear of a lot instead of from the street frontage. To widen a street twenty feet it must be remembered that it is necessary to take only ten feet of frontage from each side. The benefits derived from this loss of land are made up many times, in most instances, by the advantages of having a wider thoroughfare. No standard system has been evolved for determining the amount of damages due a property owner for land taken for street widening purposes but doubtless some standardized system will be evolved as this practice continues.

A thoroughfare plan that will serve adequately the enormously increased needs of the future is a critical problem for most cities. After streets are built up solidly with business buildings and apartments, the expense of altering greatly the street plan is so great as to be almost prohibitive. Yet it is apparent that the limited number of through routes for traffic possessed by most cities will be absolutely inadequate for the needs of twenty to fifty years hence. Unless measures are taken in time, growth will be checked and cities may be faced with the alternative stagnation and permanent ruin or back-breaking financial burdens that could have been avoided by a little vision in street planning.



Copyrighted, Underwood & Underwood

GRAND CENTRAL STATION IN NEW YORK

Railroads in recent years have been spending hundreds of millions of dollars for the construction of monumental terminals to care for the tremendous business being enjoyed by some lines. This remarkable airplane view from the north towards Forty-Second Street shows the depressed railroad tracks, about which are large office and mercantile buildings, with the passenger station beyond.

CHAPTER 6.

INFLUENCE OF RAILROADS

Railroads and their effect on city growth—Expansion of many cities due to the building of great transcontinental lines—How Omaha sprang into importance—Initial growth often begins at a railroad station—Cities which have railroads operating on main streets—Railroads enhance industrial land values—High grade retail sections grow away from railroads—Chicago, Toledo, and other cities owe their industrial importance to railroads—Tendency to have roads join in union terminals—New style terminal stations bring trains in at subgrade, utilizing street frontages and air rights for business—Interurban lines and their checkered careers.

With the advent of the steam railroad came a new force to influence the creation and the development of urban communities. Previously water furnished the best means for transportation and cities were located on seacoasts where harbor facilities were afforded, and along the banks of navigable rivers, so that in the early history of cities we find that the only communities ever attracting large numbers of inhabitants and attaining commercial importance, were those so located as to be readily accessible to boats. Sometimes such cities were located so as to operate as the focal point where the land and water transportation met. Always they served as places in which were collected the products of the surrounding country to await shipment to other markets and to receive the wares of other cities and nations in exchange.

With the development of railroads, transportation by boats sailing upon rivers and water courses became of secondary importance eclipsed by the speedier trains tapping the resources of a much wider territory. Railroad builders in general chose to select routes so as to connect by rail those communities which had already shown causes for vigorous growth, and, by so doing, added a factor which later surpassed all others as a controlling influence in the further growth of these cities. Frequently the cities connected by railroads were those that had obtained commercial prominence because of their accessibility by water routes.

But many other towns obtained, through the building of railroads, a transportation facility which was necessary in order for them to attain further greatness in commerce or industry.

Transcontinental lines in America, built shortly after the Civil War, cemented the union of Eastern and Western states and connected the Atlantic Coast cities with those of the Pacific seaboard.

The impetus given to commerce and industry by the development of railroads in the United States has been the element perhaps of first importance in causing communities to grow in size and to take on industrial characteristics which are peculiar to the modern American city. It has been said that without the railroad, the so-called industrial era in our history with manufacturing enterprises, highly specialized, drawing raw materials from all corners of the world, could never have been attained.

Outstanding as an example of the growth of the city due largely to the development of transcontinental railroad transportation is the city of Omaha, Nebraska. This city in the early seventies, was a hamlet consisting of a few scattering huts and an outfitting place for prairie schooners preparing to cross the plains. Then came the Union Pacific Railroad, the first to be constructed connecting the towns of the great West with the cities of the East. With its twin city, Council Bluffs, Omaha began to grow rapidly. Cattle raised on the ranches of the West were brought to these cities to market and there grew up many meat packing plants, business flourished, the town became a trade and commercial center until today Omaha is one of the most important western cities with a population of 191,601 persons in 1920.

As more railroads were built, vast territories in the Western parts of the United States were made available for cultivation, settlers took up home sites and little communities grew up to serve the surrounding country. These settlements were usually located where shipments of supplies could be received and facilities afforded for the loading of the farm products for transportation to distant markets. Often such towns started from what had been a construction camp when the railroad was built.

Growth usually began on the side of the railroad where the station building was originally located. Scores of small towns in the newer territories of the far West today consist of a mere cluster of small buildings about a railroad station, most of them on one side of the right-of-way. The town for a time continued to grow parallel to the tracks, however as roads were laid out leading to the station from outlying country districts, other avenues of urban growth were formed and houses were constructed along such paths. A few store buildings, a post office, and a hotel were the principal commercial buildings of such early settlements. At the edge of the town at a point farthest along the main highway from the railroad station there grew up a residential district.

On one side of tracks opposite the station growth usually was not so rapid. Coal and building supply yards, small elevators, small industrial plants and other enterprises requiring railroad transportation facilities found location nearby adequate for their requirements. Working men employed in these industries usually preferred to live as near as possible to their places of employment, and a secondary residential district developed.

While railroads are undoubtedly responsible for the origin of some towns and the later development of many towns into cities, there comes a time, as the community becomes metropolitan in character, that the land immediately adjacent to the railroad tracks is limited in its economic use to industrial purposes. Important retail business districts seldom parallel railroad rights-of-way, nor do people find the land adjacent or close to railroads desirable for the location of houses.

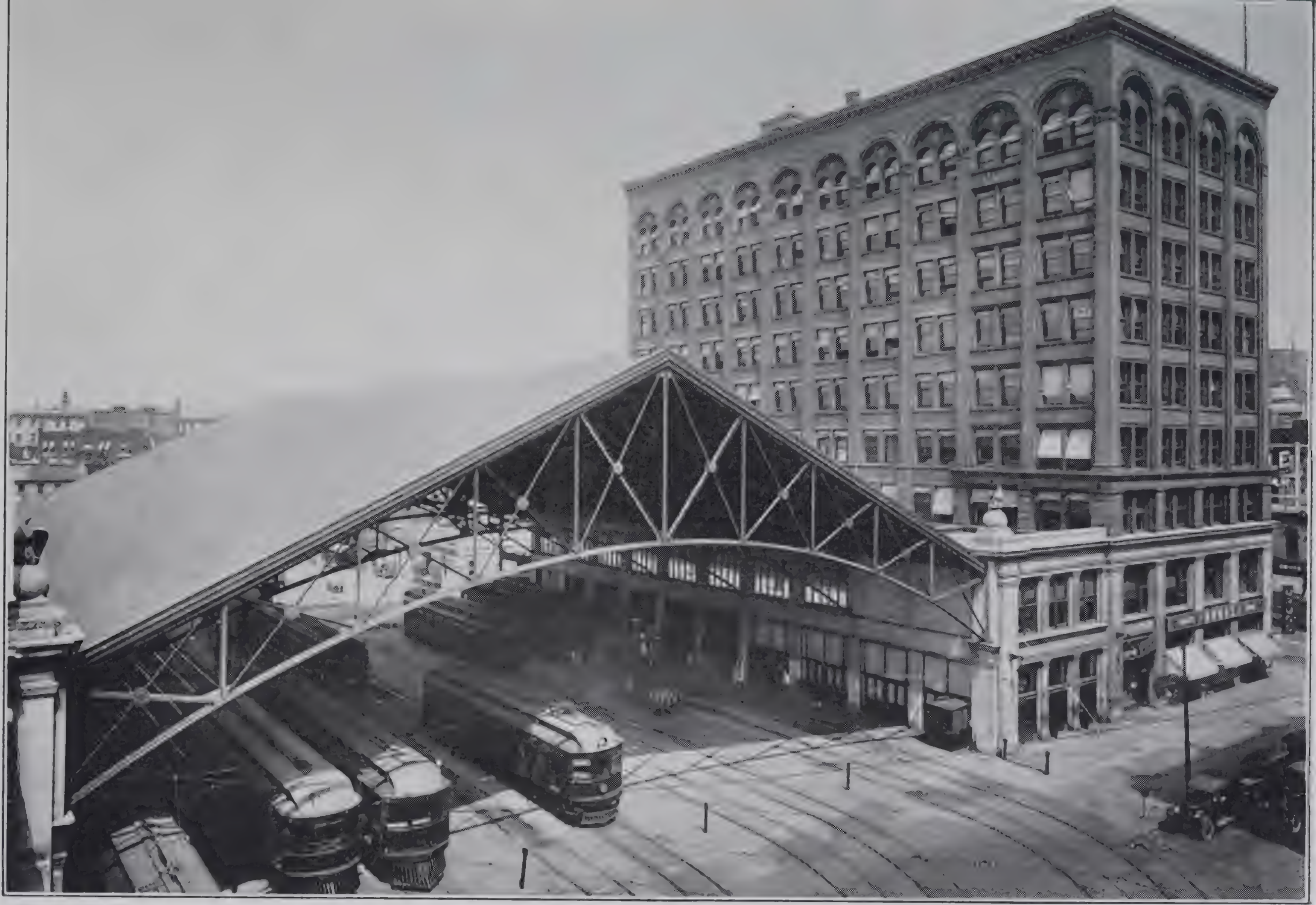
In a few American cities retail business has adopted streets which run alongside railroad tracks. In Syracuse, New York, a railroad extends through the heart of a busy retail section where important commercial structures housing stores and shops face the tracks. A similar situation exists in Dunkirk, New York, and Long Beach, California. Usually, however, retail merchants shun such streets adjacent to or running along railroad tracks. Dirt and noise from passing trains is not conducive to the success of a retail business enterprise.

The old type of railway station and the union terminals which were constructed during the nineteenth century were not so designed as to contribute much to the value of the surrounding land for retail purposes. Frequently, however, they were located at a distance from the established retail district on land of relatively little value. During the past decade, a revolution in the manner of constructing terminals for railroads has developed a type of building which is contemplated to house business enterprises as well as affording to the railroad station facilities. The plans for the new Union Station to be located on the public square in the city of Cleveland are of this character. Street frontages will be used for retail store rooms, a mammoth office structure is to be erected, the station proper being located some distance from the public square and below the level of the streets upon which the store rooms are to front. This station will provide terminal facilities not only for steam railroads but also for electric interurbans. The Rapid Transit system will find a terminus in this building and it is probable that when the structure is completed the railroads will establish suburban train service over their lines for the benefit of localities situated beyond the borders of the city within a radius of thirty miles.

It is quite probable that this type of terminal construction will offset the disadvantages that have affected the values of neighboring lands in cities where the old type of station structure now exists. The retail shops located on the business streets are planned to accommodate high grade tenants. They will afford shopping facilities for persons using the terminal and will be good revenue producers.

There is a type of terminal structure which is monumental in character. The Pennsylvania and Grand Central stations in New York, and the Northwestern station in Chicago represent this class of structure. They are not contemplated for any other use than that of the railroad, the result is that so far they have not been particularly helpful in attracting high grade retail business to the surrounding neighborhood.

Electric lines during recent years have joined together in the construction of Union stations. Usually land has been selected in districts of secondary business character. The Dixie terminal in Cincinnati, however, is located on Fourth Street which is in the heart of the busy retail shopping district. It is a sizable office structure with retail establishments on the Fourth Street frontage, the station occupying the basement of the building. It is perhaps too early in the history of this development to determine whether the terminals of electric lines



AMERICA'S LARGEST INTERURBAN DEPOT IS IN INDIANAPOLIS

Six hundred cars enter this depot each day over fourteen lines. Seven million passengers arrive and depart annually.

will favorably influence adjacent land values. In Indianapolis, where a fine electric terminal is located there has not been much evidence that its drawing power is of sufficient value to warrant the establishing of general lines of retail trade although one sizable department store has located nearby.

The type of occupancy surrounding the older terminals is cheap in character; small hotels, news stands, candy and fruit shops, second and third-rate restaurants find it profitable to locate near railroad stations of this character.

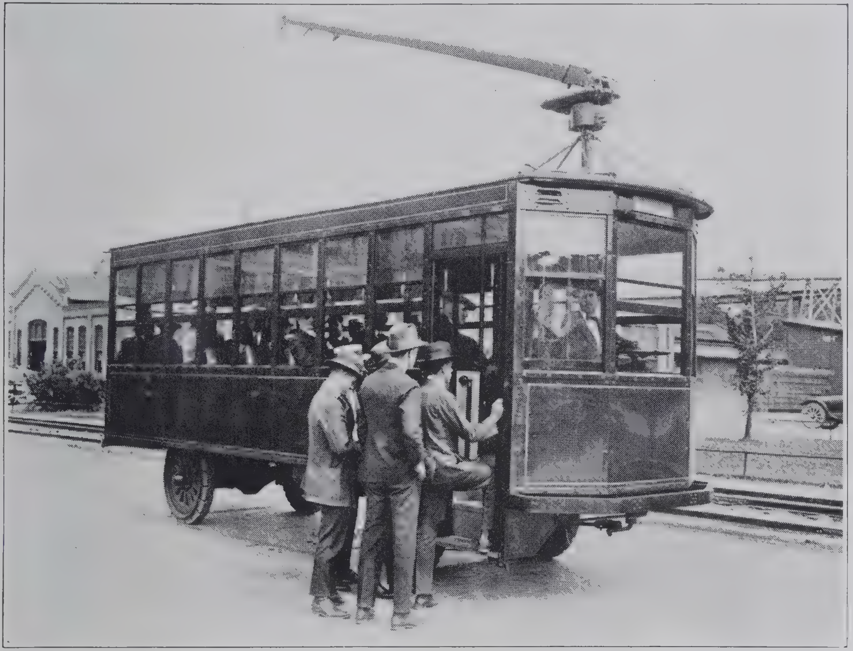
A railroad affords distinct value to land along its right-of-way which is adaptable to the construction of warehouses and factories, such businesses requiring railroad sidings for the loading and unloading of freight cars.

The location of a railroad in a town or city has an important bearing upon the position of its industrial, commercial, and residential districts and likewise affects the land values in each. In many cities river banks or lake shores are used as rights-of-way. Ravines, valleys and natural depressions are favored. Such land is of little use for other purposes because of its irregular topography, but railroad engineers are able to establish grades thereon suitable for railroad tracks. Often the river or water course affords a route of access to the center of a city, rights-of-way along which can be obtained at small cost to the railroad.

When electric interurbans were first built, cars were routed through the city over the tracks of existing street car lines. This obviated the necessity of obtaining private rights-of-way at great cost and afforded to the passengers riding on these lines opportunities to transfer to intersecting surface lines with convenience. Most interurbans provided stops at all street corners for the accommodation of the passengers who wished to alight at points along the route.

This use added burdens to the streets and thoroughfares of cities which at first did not seem to affect land values. With the development of the automobile, streets have become so congested with vehicular traffic that there is now a well defined movement to require interurbans to provide private rights-of-way to obtain access to central business districts. Some interurbans have ceased to enter the city but transfer their passengers to surface lines at the boundaries. Motor busses have in recent years proved a strong competitor to interurbans and many such companies are finding it impossible to meet this competition.

During the past decade steam railroads have electrified the portions of their systems crossing cities. Electrification obviates many objectionable features which have heretofore tended to depress the value of lands adjacent to their rights-of-way for retail business purposes. The smoke and dirt is removed, the noise is less. During the period when the United States was engaged in the world war, the railroad administration fostered the building of Union terminals in large cities because of public convenience and economy. There is no doubt but that the tendency of the



Copyrighted, Underwood & Underwood

A TRACKLESS TROLLEY CAR

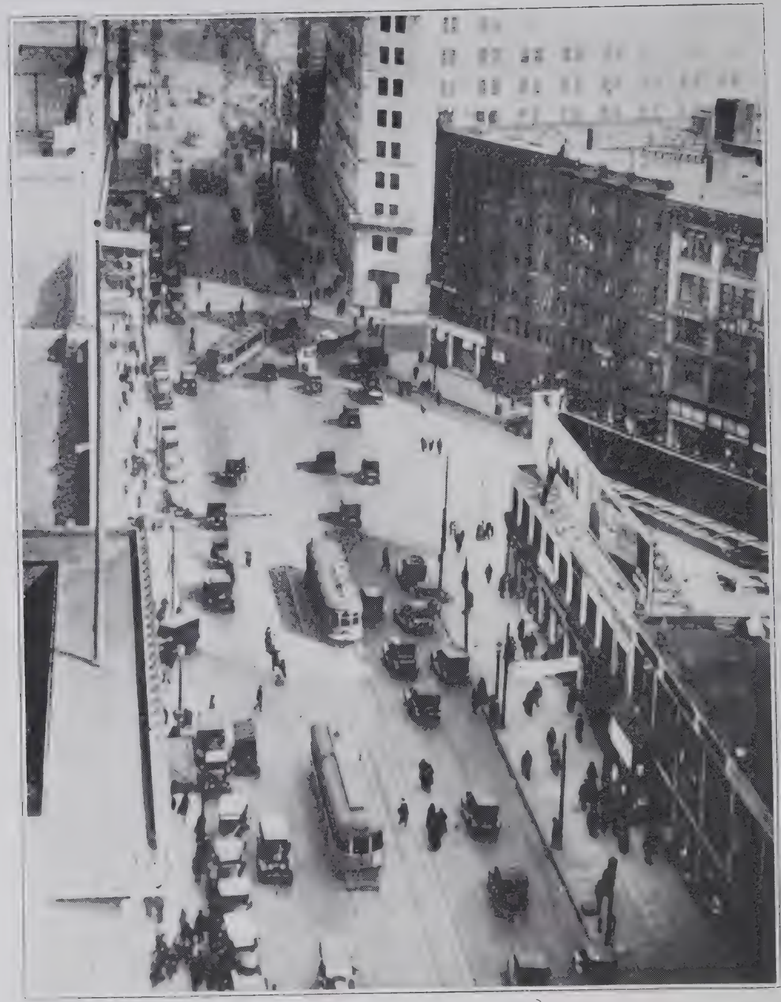
Built a good deal like a large bus, this trolley car has rubber tired wheels, but does not run on a track, although it secures its power from overhead wires much like an ordinary trolley car. It can turn around under its own power. It is doubtful if this type of locomotion will ever become popular, due to the efficiency of the latest type of auto busses which have come into use.

time points to a concentration of terminal facilities for railroads. Cincinnati is planning a new terminal for railroads and Los Angeles is engaged in working out a similar enterprise to be located in the city's old Plaza district. Union terminals for electric interurbans have been provided in the cities of Indianapolis, Akron, Oklahoma City, and Los Angeles.

Before the time of railroads urban communities were necessarily local in character. They served the neighboring country as markets in which to exchange the products of the soil for other necessities of life. The railroads linked these local communities together and as the larger transportation systems developed people were attracted to take up residences in cities where higher wages could be earned and opportunities for diversified employment were greater, industries were concentrated therein and cities became of national rather than local importance. Markets were provided thousands of miles distant from the place where an industry was situated, making it possible for the manufacturer to sell the products of his factory to customers other than those living within the confines of his city.

Railroads have probably done more toward the development of machine industry than any other one factor except the invention of the steam engine. They have also been important factors in concentrating population in urban centers. It is interesting to note that concurrent with the development of railroad transportation, urban population has steadily increased and rural population decreased.

While the presence of a railroad line through a section of a city does not tend to increase its desirability for high grade retail business houses or for residential purposes there is no doubt but that they increase the value of land for industrial purposes and lands adjacent to their tracks are sold for manufacturing sites at peak values.



DANGER LURKS AT CITY CORNERS

Where streets meet at acute angles, forming a flatiron, a long dangerous street crossing is necessary. Flatiron corners often become among the most valuable locations in a retail district, and to overcome the traffic difficulty during busy hours rows of standards are placed across such intersections, allowing vehicular traffic to percolate slowly through narrow gaps, thus protecting pedestrians. This intersection at Euclid Avenue and E. 14th St., Cleveland, presents a particularly aggravated condition, which has been corrected by the use of standards during busy hours.

CHAPTER 7.

TREND OF PEDESTRIAN TRAFFIC

Pedestrian traffic, the weather vane of values—Elements affecting trends of traffic—What is beneficial and what detrimental to retail values—Pedestrian traffic congestion sometimes detrimental to certain stores—Classes of city dwellers who do not intermingle—How automobiles are eliminating this condition—Pedestrian traffic dislikes obstruction—Day and night travel in relation to values—Evening traffic is pleasure seeking, and is useful to only certain types of stores—Wholesale districts deserted after sunset—Seasonable traffic.

Pedestrian traffic in a business district is considered the weather vane of rental values. It is usually true that in the location where the greatest number of people pass during the shopping hours merchants are willing to pay maximum rents for store space, thus producing high returns to the owner of the property.

Foot travel, however, is susceptible to many influences which tend to change its course and its effect is therefore hard to measure accurately. People seem to prefer the shady side of a street in summer and the sunny side in winter. A street that lies in a direction so as to be a channel for prevailing winds is usually unpopular and avoided by shoppers.

In cities bordering on the southern shores of the Great Lakes, north and south streets are channels for the prevailing winds blowing off the lakes and are therefore unpopular in winter.

Obstructions of any nature upon a sidewalk will divert pedestrian traffic. Traffic counts taken at regular intervals show a marked decrease in pedestrian traffic at locations where building construction is going on, necessitating the erection of sheds over the sidewalks.

Among the influences affecting the flow of pedestrian traffic are:

1. Sun and Shade—Women prefer the shady side of a street in summer. In winter a slight increase of

traffic is noticed on sunny sidewalks. Snow melts faster on walks exposed to direct sunshine and they are easier to keep clean in winter.

2. Wind and Rain—A street "heading into" the direction of prevailing winds is unpopular with pedestrians. Hats are blown off—skirts of women blown askew and difficult walking is encountered in winter. In summer while these streets benefit slightly from cooling breezes yet this is offset by pelting rain driven by high winds. Corners are often avoided by pedestrians where the winds are particularly gusty.

3. Obstructions—Any obstruction on a sidewalk whether temporary or permanent is distressing to the pedestrian and tends to divert traffic. The practice of merchants placing empty packing cases on sidewalks in front of their stores has been completely abandoned in larger and more progressive communities chiefly because of the tendency to obstruct and divert the pedestrian traffic.

Often structures are erected by contractors over sidewalks to permit safer building construction on the abutting land. Actual counts taken indicate a marked falling off and disturbance of traffic while these temporary structures are allowed to stand.

Stairways to upper stories and basements encroaching on sidewalks are objectionable to pedestrians and are practically unknown in progressive business districts today. Most cities have forbidden by ordinance the use of sidewalks in such manner.

News or fruit stands tacked on the sides of buildings, blocking the sidewalk, are usually very detrimental to values, although many persons congregate around them. Such an assembly itself blocks and discourages pedestrian traffic.

4. Density of Traffic—In many cities pedestrian traffic at certain points becomes so dense that it overflows into the roadway. Sidewalks become congested with a veritable tide of human traffic. Pedestrians crossing find serious trouble in breasting it. For instance, traf-

fic overflow is illustrated by the condition existing at noon hours on Broad, Wall, and William streets in New York City, and E. 6th and E. 4th streets in Cleveland. Dense pedestrian traffic encountered at certain locations tends to discourage more timid and less patient shoppers and actually depresses values.

5. Wide-open spaces discourage the average pedestrian. No one enjoys crossing a street intersection in a busy city. Alleys opening through to a heavy traffic sidewalk cause shoppers trouble, for autos, wagons and delivery carts are constantly popping out to block the flow of travel and endanger pedestrians.

Inhabitants of a city do not intermingle at random but go from one place to another by the shortest, most agreeable and quickest route. In Cleveland many residents living west of the river rarely go east farther than absolutely necessary to carry on their immediate business. Many never cross the river to shop, preferring to buy from stores on the west side. East siders, likewise, avoid the west side and many there are who never see how "west siders" live.

In New Orleans, many Creoles seldom cross Canal Street into the American quarter. New Yorkers of the upper classes avoid the East Side, while those living in that famous quarter are comparatively unfamiliar with upper Broadway, Fifth Avenue and the theatre and high grade shopping districts. Similar circumstances surround the daily movements of thousands in America's metropolitan cities.

This condition was particularly true before the advent of the automobile. The development of the cheap motor car has broadened the explorations of many millions of city dwellers so that gradually there is less localism and more universality in the meanderings of city residents.

Nevertheless, pedestrians seek the quickest and most direct route when proceeding somewhere. To satisfy this human characteristic, arcades are constructed connecting parallel streets. Even new streets are opened to traffic, sometimes at enormous expense over high priced land. Not infrequently large department stores seek double frontages on parallel streets in order to accommodate pedestrians and benefit by the pedestrian traffic passing through the stores.

One authority compares pedestrian traffic to a stream flowing down a watercourse. Obstructions check it and turn it aside as water in a stream. It is remarkable how fluid the daily travel on city streets is and the closeness within which it seeks its own level. Like water, the stream of traffic in flowing down a street, will back into cross streets, influencing store locations to a distance proportionate to the strength of the current and establishing what is known to real estate owners and operators as "corner influence." This may be briefly defined as the additional value given to a site situated at the intersection of two or more business streets due to the confluence of the streams of traffic established thereby.

Special occasions affect traffic materially. A city popular for conventions of various kinds will constantly have a floating population of strangers, who crowd the streets and add to the business of certain types of shops and stores. Americans are fond of congregating in conventions of all kinds and scarcely an American city of any size or importance fails to cater to their convenience.

Circus days bring many visitors to the city and draw city dwellers down town to see the parades and shows. Parades of all kinds interest and attract people and usually contribute to the volume of business of the stores situated along the route selected.

The main effect of these daily currents of travel is on the retail stores. Increasing traffic, both vehicular and pedestrian, is certain to change ultimately any street into a shopping street unless there are restrictions against business uses.

It is also true that the growth of new residential districts is certain to change the route of principal travel within a city, which will tend to draw shops and retail establishments to the street which is the axis of the neighborhood and on the most direct route to the district from the center of the city. Broadway in New York City is an example of such a transition. Fifth Avenue in the same city has been developed through such forces. In Cleveland Carnegie Avenue and its connecting street, Prospect Avenue, are robbing Euclid of some of its ancient importance due largely to the new heights development which requires these streets as the principal tributary highway.

In river towns marked changes have occurred due to the relocation of the best residential districts. These towns have been laid out with principal business streets parallel to the river. Growth has forced people seeking residences farther and farther away from the river and resulting therefrom we find in such cities as Cincinnati, Detroit, St. Louis, St. Joseph, Toledo, Minneapolis and Portland, that the principal businesses have deserted the streets paralleling the waterfront to re-locate upon streets at right angles thereto and tributary to the best residential districts.

As stores follow the shifting currents of travel, rental values move with them, the value of retail land depending, as expressed by one eminent authority on the subject "on the number of people passing, qualified by their purchasing power, the causes which bring them past the property and their method of locomotion. This dependence of retail business on daily traffic is due to the operation of the laws of chance, by which, of a given number of passersby, a certain proportion will become customers."

In most cities there is a marked difference between day and night travel. Starting in early morning the working men leave their homes and travel by foot, by street car or by automobile, to their places of employment. Anxious to cover the distance as rapidly as possible, the route selected is the most direct. Short cuts across vacant land are taken by walkers and every possible method employed to cut distance. Later the office employees and clerks start down town. Usually the distance is such that some means of transportation other than walking is employed. Business districts draw workers from all directions, much as a magnet draws pieces of steel and iron.

Shop workers seek residential locations close to the shop in which they are employed but down town workers find this impossible due to the high cost of locations near the business districts in which they work. Therefore, most axial travel in a city is that of down town workers, while crosstown travel is patronized by shop workers employed at plants in industrial sections of the city.

In the later morning and early afternoon the shoppers enter the retail business districts and carry on the trade which contributes most to retail rental values. This traffic thins out rapidly after four P. M. and gives way to the home traffic of the office and down town workers which is nearly completed by six P. M.

The evening traffic is pleasure seeking. Large stores are closed. Only drug and candy stores, cigar counters, news stands, restaurants and stores of similar character remain open. Occasionally a cheap jewelry shop seeks night patronage. This condition is true in the district known as high grade retail.

Quite different is the night business conducted in third or fourth grade districts and in neighborhood shopping centers. In residential districts inhabited by working classes the neighborhood store does its heaviest business at night. Practically all such stores remain open sometimes as late as ten o'clock. The worker, unable to shop during the business day, buys furniture, dry goods, groceries, hardware, shoes and supplies most of his wants from these little shopping centers during the hours after sunset.

Wholesale and manufacturing districts are practically deserted by traffic of all kinds after 6 P. M. each day. In certain cities street cars serving these districts are re-routed after the close of business hours and in nearly every city the schedules of surface cars travelling through these localities are curtailed. After 6 P. M. the Broadway (New York City) wholesale district is almost deserted. The same is true in W. Sixth and W. Ninth Streets in Cleveland, as well as in all similar districts in large cities throughout the country.

In the sections bright with the brilliant lights of the theatre signs, a throng bent on relief from the cares of a day are pushing and crowding the theatre entrances and seeking admission to moving picture shows, restaurants, soda grills and dance halls.

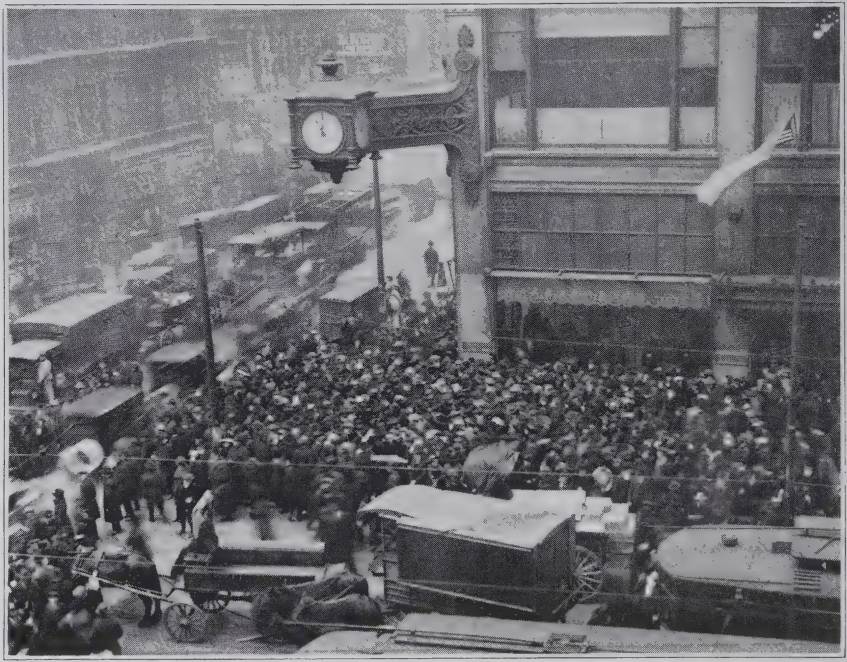
Auto traffic sometimes is so heavy that extra details of police are required to prevent congestion. This type of night travel is not bent upon serious shopping. Department stores could remain open along side of such a stream and few would enter the doors. Such travel is pleasure seeking. To druggists and confectioners this crowd means success and profits—to other business, evening crowds mean nothing.

There is another kind of traffic which might be denominated "seasonable." It is exemplified by the stream of travel that flows toward docks in summer, especially in lake and river cities where navigation is closed in winter. Excursions, ferries, and other forms of water travel are very attractive to people in summer and streets such as E. Ninth Street in Cleveland, which leads to the steamship docks, lower Woodward Avenue in Detroit, Rector Street in New York City, which carries summer travel to and from the Sandy Hook boat, have heavy traffic for a few months of the year but carry no value as shopping traffic because the crowd is either pleasure seeking or in a hurry.

Traffic increases during summer months on such streets as lead to public parks. It is however of practically no value to stable businesses.

Sidewalk traffic has become so dense in certain cities at particular locations that pedestrians find it almost impossible to weave through and out of the stream in order to enter any of the stores along the route for shopping purposes. Where such conditions exist, window displays are of diminished value for no one desires to be jostled by a moving throng so dense that it fairly carries one with it.

At certain locations on State Street in Chicago the traffic is too dense to be valuable to the merchants whose stores border it. Detroit has tremendous traffic on Woodward avenue during certain hours of the day, however, some relief is afforded by the layout of the downtown district with many intersecting and parallel streets to carry some of the traffic burden. Euclid Avenue in Cleveland, just east of the public square on the south side, between the hours of 11 A. M. and 2 P. M. carries a pedestrian traffic load that is a positive detriment to the business of merchants on that side of the street. Many cross to the north side in order to avoid this crowd, and carry their trade with them to other shops in less congested districts. Traffic counts taken by the Cleveland Association of Building Owners and Managers at this point show an average of over thirty-four thousand people passing this point between the hours of 9:30 and 11:30 A. M. and 2 and 4 P. M., of which 69 per cent were women. Compared with a point exactly opposite where like counts were made during the same hours the record shows less than one third as many



Copyrighted, Underwood & Underwood

WHEN THE TRAFFIC COP SAYS "STOP!"

This is not a mob scene in a melodrama, but an all day occurrence at State and Madison Streets, Chicago, said to be one of the country's busiest street intersections. It is duplicated daily at hundreds of other corners in cities all over the country. How much more traffic of this sort can the average city accommodate?

pedestrians, with only 25 per cent women. Taken over the entire day this would indicate a volume of traffic of at least one hundred and fifty thousand for twenty-four hours at this one point. Where situations such as this exist merchants can do much to relieve congestion and at the same time attract shoppers by recessing the store fronts so as to permit window shopping without the difficulties attendant upon stopping to gaze on window displays and forming an obstruction to the human stream passing by.

Sidewalks of a width of from twenty to thirty feet will in the future be necessary to accommodate the increasing crowds in central retail districts unless some unforeseen change occurs.

An irregular sidewalk or one full of cracks or depressions, is discouraging to pedestrian traffic and will be avoided when possible. Flag stones irregularly laid and roughly dressed were formerly used in cities for sidewalks. These have been entirely abandoned, together with brick and wooden walks which were common in earlier years.

Hills and even slight grades are avoided by pedestrians. In cities built on hills like Duluth and Akron, most of the stores are located on streets running parallel with the hillside. This is not true of Mansfield, Ohio, however, where the principal retail business street ascends a hill.

A street may be too wide for good retail shopping. Shoppers are unwilling to journey across a wide street and be subjected to dangers incident to dodging several lines of motor vehicles. A street of a width of from sixty to eighty feet is ideal for retail districts. The repair in which a street is kept materially affects value of the street for shopping purposes. In the first place it deters motor traffic, secondly, it is difficult to walk on surfaces which are broken by depressions and breaks in the paving.

One investigator has suggested the rather interesting theory that traffic regulations which require citizens of this nation to turn to the right, has made the right side of a store, as one faces it, more valuable for merchandising than the left of the same store. Some slight investigation has been made of this theory which tends to show that it has some merit, but before it can be accepted as a principle further study must be made.

Traffic regulations may help or harm a street from the standpoint of retail shopping. The exclusion of automobiles from parking in certain areas detrimentally affects the business of the shops upon the street so restricted. Especially is this true if parking is prohibited on one street and permitted on another rival street. Even the attitude of the corner policeman regulating the flow of traffic may materially favor or be detrimental to retail rental values in a given area.

Fundamentally, whatever discourages individuals from desiring to walk upon a sidewalk will affect the value of that side of the street as a shopping center.

CHAPTER 8.

HOW LAND VALUES DEVELOP

Highest values found in retail districts—Main shopping districts in cities similar—Five and ten cent stores seek locations close to stores doing extensive advertising—Drug and cigar stores choose strategic corners—Men's shops take second grade locations—Furniture and piano stores accept cheaper space—Small shops cluster on the edge—Banking district segregated—The automobile sales district—Development of apartment house districts—How outlying business areas develop—Nuisance types of business now segregated—Public buildings grouped—How churches change locations.

Highest land values in any city will be found in retail trade centers.

Retail stores are able to pay the high toll because they collect from the buying public the rent due the landlord, but rentals are necessarily limited in proportion to the profits which the retailer can make. If the land owner demands too heavy a share of the profits, the merchant either moves to a new location, or fails in business.

Certain kinds of retail business can afford to pay higher rentals than others because the turnover of stock is more rapid, and the profits greater, although the margin between cost and selling price may be less. Generally speaking, those merchants dealing in women's apparel of different kinds can always afford to pay the highest rentals. Women seldom allow the matter of price to interfere with their desire to own pretty gowns, hats, or shoes.

The main shopping districts of all cities are surprisingly alike in the character and location of the stores represented. In the very heart of the business section will be found the big department stores, catering largely to women's trade. More than three-fourths of the shoppers to be found in a department store are women, and often the percentage is considerably higher. Women particularly are attracted by skillfully decorated show windows and goods attractively displayed in cases and on counters bordering the main aisles of a large store. They often drift into one of these stores to buy a spool of thread, or a bit of ribbon, and depart laden with several packages of merchandise. Since women spend most of the family budget, stores catering to their needs can always pay the highest rentals.

Clustering closely around the department stores are other large stores handling exclusive lines of women's clothing, suits, cloaks, and millinery. These establishments like to settle in a location near big department stores which are heavy advertisers.

Five and ten cent stores are always eager to locate close to a large store doing a heavy volume of advertising. Such stores seldom advertise, but depend upon trade attracted to the locality by other establishments. They always seek locations where pedestrian traffic is heaviest. They cater to all classes, from the foreigner with a shawl about her head, who wants a couple of cheap dishes, or some candy, to the busy business man who remembers that his wife told him to bring home a fly swatter or a hammer. Five and ten cent stores depend upon volume of small sales, and large turnover of their goods. They show big returns during the course of the year and can afford to pay large rentals.

Drug and cigar stores, often of the ‘‘chain’’ variety, pay fancy rentals for strategic corner locations where pedestrian traffic is heavy, and where large numbers of buyers can quickly and conveniently step in and make purchases. Drug stores are frequently advertisers, but the advertising done by cigar stores is relatively small, except that which is done by certain chain stores on a national scale. Drug and cigar stores are keen rivals for small corner stores in prominent locations, and often pay, per square foot, the highest rentals in a large city.

Men's shops usually assemble in a secondary location often on the sunny side of a street across from the women's stores. Their margins of profits are lower. Men are perverse as regards fashions, and will not pay exorbitant prices for clothes merely to be dressed according to the latest style. They have pretty well defined notions as to what they want, and often buy the same kind of collars, shirts, hats, or shoes year after year.

Merchants requiring large space for the display of their goods, such as furniture and pianos, must necessarily seek cheaper locations where rentals in the aggregate for space used are not as high. These concerns can use great areas of rear or inside and upstairs space. The high rentals existing in many cities are driving such stores farther out from the congested areas year by year, thus creating outposts of new shopping districts.

Banks are able to pay large rentals for space, and often monopolize choice street frontages, which would otherwise be given over to retail trade. It is significant, however, that in recent years in cities where banks are erecting new buildings on busy streets, stores are being placed on the street frontages, the main banking rooms occupying rear space. Examples are the Union Trust Co. of Cleveland, and the First National Bank of Chicago. This is not so much for the revenue produced, though that is sizable, but because of the desire to retain land values by a type of utilization which does not tend to detract from the general character of the district as a retail shopping center. In many cities the banking district is a unit in itself where row after row of imposing structures house the leading financial institutions. In such districts where the use is purely for financial institutions little retail shopping exists and the desirability is not determined by the same factors which measure values in a retail district.

About the edge of the high rent districts cluster the countless small shops to be found in every city. They shade off from the stores which can pay average rentals to those which must, for financial reasons accept modest accommodations.

Retail values are usually highest on the main thoroughfare which runs direct from the highest grade business district to the highest grade residential section of a city. There may be parallel streets which have a good type of trade, but there is usually one main thoroughfare which enjoys the chief prestige and collects rents on that reputation. There is located the city's "gold strip," where the highest retail rents prevail. The most outstanding street of this character is Fifth Avenue, New York.

An evolution of recent years is the coming of the automobile sales district. This is often on the main street beyond the higher grade retail district, though it may later shift to parallel and cross streets as rentals increase on the principal thoroughfare.

Due to keen competition, there is a limit on the rental which can be paid by an automobile sales agency, such rentals rarely exceeding two per cent of gross sales.

An interesting series of changes may usually be noted on the main business street of a city. As business advances from block to block the high grade homes become rooming houses. One by one these are replaced by one story business buildings, called "tax payers." Then as demand becomes insistent, new and large permanent business structures are substituted. In the course of a few years, the character of building and business occupancy in a city block may change several times.

Character of occupancy and proximity to factors determining the maximum purchasing power such as heavy pedestrian traffic, determines the rental values of a property in a retail section. New districts develop in a somewhat uniform way. First the owner or real estate operator foresees that a property is in the pathway of a business preferment, and one by one buildings suitable for retail trade are erected. The demand for more stores to supply the requirements of an increasing population exerts pressure which results in the establishment of new retail enterprises. Merchants, at the mercy of landlords owning property in more favored districts, determine to escape from the high rents being demanded, and with the well known American pioneering spirit move to new locations. For a time they experience difficulty in attracting trade to the new location, but if their judgment has been sound, it is not long before customers follow and patronize their stores, increasing in numbers as other businesses locate nearby and soon a new shopping center has developed. That seems to be the logical order—new buildings constructed to accommodate new businesses, new business locations taken by merchants, and ultimately a new retail district is created.

In larger cities where apartment houses become a necessity because of high land values and intensive living conditions, there is likewise an evolution in the use of land on side streets crossing the main business thoroughfare. Old time families move to new and more modern residential districts, and the ancient mansions become boarding houses, to succumb later to apartment house development. From residential land worth $50, 75, or $100 per foot front, the districts changed gradually until land is worth $200, $300, $400, or higher, per foot front for apartment house use.

In this evolution, however, there occurs a curious wiping out of physical values represented by old dwellings because of the changed use to which the land is put. Fine homes which would cost many thousands of dollars to reproduce in their entire physical condition are almost wholly absorbed in the value given the land for its newer and changed purpose. Often owners of these old homes cannot understand this elimination of physical value, but any student of city land values can readily appreciate that when high land values exist an owner cannot hope to get a fair physical reproductive value for a detached dwelling situated in a district which has changed from a residence to a commercial character.

Important business centers develop in outlying residential sections. These spring up at street car or main highway intersections, and often attain extraordinarily high land values. These centers are fertile fields for real estate operators who vie with each other in furnishing the accommodations needed for expanding business. Often more commercial buildings are erected than the business of the district can absorb. Stores remain vacant for long periods of time and merchants fail. Such overdevelopment brings little return on the investment until the surrounding neighborhood grows large enough to warrant the volume of retail trade attempted in such business centers.

Excellent opportunities arise for making profit through the acquisition of land in outlying sections in the path of business growth, particularly if there is a dwelling house on the tract of land, which can ''carry it'' until such time that it may be profitably improved with a suitable business structure. Vacant corners can be acquired, and sizable profits made by holding them, provided the accretion in value is greater than carrying charges.

Land in purely residential neighborhoods seldom appreciates in value in excess of carrying charges plus fair interest charge upon the money invested. Persons who believe they make money by buying and holding residential lots seldom carefully figure out carrying charges. They usually measure their profits as the difference between the price paid and the sale price. In rapidly growing residential sections, however, profits do frequently accrue to lot owners, but on a general rule canny investors seek business property or land on main outgoing and crosstown thoroughfares in order to make the largest returns on their money. Residential land should be acquired for the purpose of improving it with homes, either for use by the persons who build or for sales to those who do not care to undertake building operations themselves. In the latter instance the profits made are the results of the building enterprise.

Money is often made in acquiring large tracts of land suitable for industrial purposes adjacent to a railroad and cutting it up into small parcels which are furnished with suitable switching facilities. These smaller units are sold either as bare land, or improved with factory buildings erected to suit the need of the individual concern using each one. Land so developed often increases many fold in the hands of a skillful operator who is familiar with the direction of growth in his city.

Similarly, there are operators who develop warehouse and commerical districts either on a small or large scale, and collect a profit for their foresight and energy. Great commercial terminals have been promoted in many of the larger cities which yield excellent profits both in income and in land increment in the sections where they have been built. The most noted of these, perhaps, is the Bush terminals in New York City.

The depressing influences resulting from the appearance in a neighborhood of a business which can be classed as a nuisance has resulted in late years in the segregating of such occupations. Many cities no longer permit reduction plants, stockyards, glue factories, tanneries, and similar businesses to settle within their borders. In older cities, such nuisances are banished, if possible, to some section where they can do comparatively little harm, and where they will not depreciate property values to the degree noted in former years. When they have existed within a city's limits in years past, there is a constant agitation to remove them to points farther out.

Many communities have, within the past decade or two, started movements for the segregation of public buildings into groups, where they will reflect their own glories through proximity. Cleveland has a group plan of public buildings on which nearly $40,000,000 already has been spent. San Francisco has also made very definite strides in this direction while the splendid arrangement of monumental buildings to be found in the capital city of Washington is known to everyone. Indianapolis, Rochester, and Toledo also are fostering ambitious group plan schemes.

A few years ago, the main street of nearly every large city saw many corners on main business thoroughfares occupied by fine places of worship. Properly located at the outset, they became misplaced as business districts expanded. The practice is now becoming general, however, to erect churches in purely residential districts upon local streets rather than main thoroughfares. Fortunes have been made by congregations owning sites in the path of business growth where land values increased rapidly.

It is therefore apparent that the course of the transition in the use of urban land which results in increase in land values occurs under the following conditions:

1. Land in the downtown section of a town or city comes into intensive use for retail business purposes.
2. Land on main outgoing thoroughfares is required for business use.
3. Land at intersections of street car lines away from central business district comes into use for the location of small retail shops catering chiefly to car riders and those resident in the immediate neighborhood.
4. Residential property changes into apartment house or minor business use.
5. Large acreage areas are developed into residential or industrial sites.
6. Vacant lots in residential districts show activity on the eve of a big development by reason of special conditions such as furnishing of rapid transit, or some similar improvement.

CHAPTER 9.

UNUSUAL CONDITIONS AFFECTING RETAIL TRADE AND RENTALS

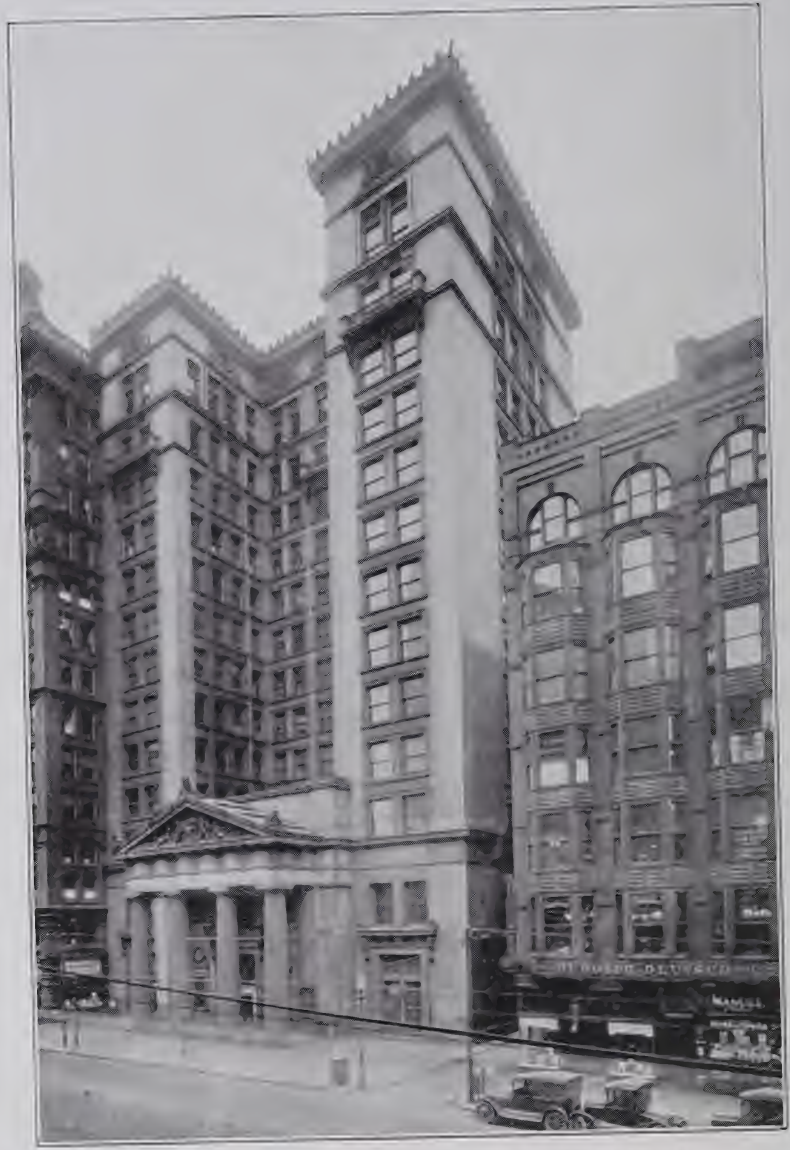
Weather has varying influences on the retailer's business—How advertising is curtailed because of forecasts—Effect of unseasonable weather on trade—How restaurants are affected—Saturday half holidays lead to Saturday whole holidays during summer season—Bad effects following periods of unemployment in a city—Labor disturbances and street car strikes, their reaction on business—Cutting off of electric lights during a busy shopping period prevents sales, as do big fires in retail districts during shopping hours.

Varying influences affect the currents of business from season to season and almost from day to day. Late springs and early falls, cold summers and mild winters, create new problems for merchants and affect their ability to pay rents and meet their other obligations.

Many a merchant, just going into business has "bet wrong" on the weather and has had the struggle of his life to pull through, if he succeeded at all in doing so. Where weather is seasonable it is good for almost all lines of retail business for the merchant has stocked up for the average season and is ready to do business on that basis. Cold weather, it is said, helps more lines of trade than hot weather. Heavy rains may result in more rubbers and umbrellas being sold but on the other hand it may keep thousands of shoppers at home who will not spend their money until a more propitious time.

Rain in the morning has a depressing effect on retail business, especially on the business of department stores and shops catering to women. The sky looks dark and gloomy and women decide to postpone their shopping trips. Rain coming just after the lunch hour, however, is welcomed by the same merchants for it drives the shoppers within doors.

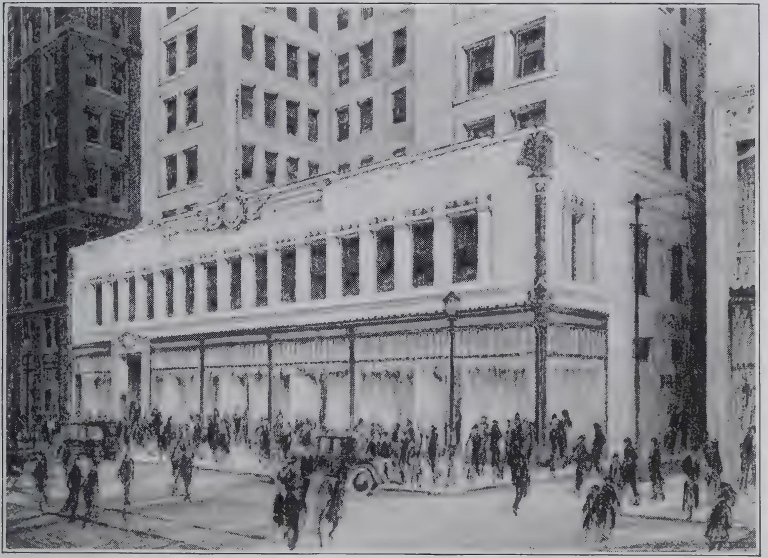
Advertising managers in department stores regulate the amount of space they use, to some extent, by the weather forecasts. If rain is predicted they see no reason why they should



ERECTED IN THE "STONE QUARRY" ARCHITECTURAL ERA

Twenty or more years ago, architects of bank buildings considered it necessary to erect great monoliths of granite at the front entrances to financial institutions. Huge pillars thirty feet high, weighing many tons, were upended in front of this one. On the opposite page may be seen the same building redesigned for business purposes, the structure having been sold by the bank, which built another home for its activities.

have a "double page spread," which is very costly and which may not attract customers because it is raining. Real estate men likewise curtail their Sunday morning advertising if rain is predicted for that day, for buyers simply will not travel out to residential sections to look at houses or lots in damp gloomy weather.



BANK TRANSFORMED INTO BUSINESS BLOCK

This shows the lower floors of the same building pictured on the opposite page as redesigned for retail business purposes. The former tenant in erecting its new banking home placed small shops on the street frontage.

It has been noted by architects, too, that persons contemplating the erection of new homes will not visit an architect's office on a rainy, gloomy day to discuss the planning of a new home.

Late, cold springs have a decided effect on buyers of clothing, both men and women. Men will continue to wear their old suits and felt hats until the very last and then only are driven to the tailors and hat shops because of the discomfort they feel, due to the approach of summer. Women will continue to buy heavy clothing despite the proximity to the season when thin fluffy gowns are in vogue.

When the summer season is too far delayed by reason of a backward spring, retailers of women's goods often suffer great losses. They have probably stocked up heavily with summer goods. If the season is delayed many women will curtail their purchases on the assumption that the summer season will be short and they determine to get along on the smallest amount of raiment possible. Men will rummage through the family closet and haul out last summer's suit, have it cleaned and pressed and use it another year.

Restaurants, as a class, feel the effects of varying and unusual weather conditions. On rainy days, when people cannot get out into the open to spend their noon hours parading the streets they will sit in restaurants and consume more food, avoiding walking around in the rain. On bright sunshiny days they will snatch a bite or two and hustle off to do some actual or window shopping. On bright days, too, the restaurants often find a different array of faces. Old timers who eat there regularly have gone for a walk some blocks away and will eat in another dining room that day at least.

On cold windy days in fall or winter retail trade is visibly affected. Women shoppers will not leave their warm houses or flats to face a storm. Employees of downtown office buildings and business establishments hurry to the nearest place possible to get a bite to eat and then hurry back to a warm, comfortable office, store or workshop. Some have lunches sent in.

Saturday half holidays have had such an effect on retail trade in many cities that it is the custom in some places to close up the main retail business establishments all day Saturday at least during the summer months. The Saturday afternoon closing practice has become so general that the volume of business done Saturday morning is so comparatively small that many merchants do not think it worth while in many instances to keep their stores open to take care of it. Many restaurants and clubs are almost deserted Saturday noons because the occupants of centrally located stores and offices hurry home for lunch instead of patronizing the downtown eating places and social clubs.

Vacation periods affect business in many lines. During July and August many people are either out of the city, getting ready to go or just getting back, so it becomes difficult for salesmen to interview and interest customers in merchandise. Likewise in January and February when well-to-do people journey to Florida, California or other resorts, it is difficult for some salesmen to keep themselves busy, if their business is with the class of people who hurry away to escape rigorous weather.

Stories of economic conditions carried in the columns of newspapers often result in strange quirks in both wholesale and retail trade. If the public is told day after day that there is a sugar scarcity impending, people rush to the grocery stores and lay in great stores of sugar, hoarding it against future needs and often paying exorbitant prices. This spectacle has been witnessed on a nationwide scale during the past few years. Flour has been stored in the same way, as have many lines of staple foodstuffs and canned goods. Because of the demand, prices soar, later dropping sharply.

On a market of rising prices the retailers hurry to lay in stocks of goods so they can profit by the increased retail prices which are sure to follow. On a falling market the buyer in a big department store will order men's shirts or collars in dozen lots, buying from day to day as needed. These problems of economic retailing conditions are woven into the warp and woof of business and seriously affect its ability to survive and pay the landlord the rent when it comes due.

A condition affecting retail business is noted in towns where there has been a boom in a single industry which perhaps has ridden to a fall because of a general business depression throughout the country. There is a sudden falling off in employment, store collections are slow or impossible, scores of customers desert the town or city to secure employment elsewhere and the merchant immediately finds that his big expense—rent—cannot be met. He either relies on the generosity of the landlord or quits business. Store rooms are thrown on the market with no one offering to take them at any rental for the time being. This immediately affects the entire real estate situation in a city suffering from this condition which often takes months or even several years to overcome.

A great labor disturbance in a town immediately reflects itself all along the business line, ultimately falling upon the landlord who is unable to collect rent and the banker who finds it impossible to secure payments on loans. In towns where great industrial disturbances have occurred business property values have been seriously affected for extended times.

A town may get a reputation for being a ''radical hotbed'' and investors will decline to spend large sums of money on new business structures, always fearing a possible repetition of disturbances.

Merchants occupying stores adjoining sites which are being improved with new buildings feel a marked slowing up in trade due to the blocking of sidewalks while the building operations are carried on. Trade in adjoining retail stores is seriously depressed until the unnatural barrier to the flow of traffic is removed.

Street car strikes, fortunately becoming less dangerous because of the wide and general use of automobiles, have paralyzed whole communities for weeks. Retail business downtown suffers keenly because shoppers are unable to reach the business districts. Small retail stores in outlying sections reap a corresponding harvest because of unnatural and disrupted conditions.

Great catastrophes like fires, floods, earthquakes, and tidal waves, of course, disrupt business in addition to causing heavy property losses. It takes months, sometimes years, to get back to normal conditions and the rebuilding of a whole business section in a city so affected is sometimes necessary. Witness Dayton and Hamilton in Ohio after the great floods of 1913; San Francisco after its fire and Galveston after the tidal wave, some years ago.

Relaying of pavements, digging of big sewers and reconstruction of large bridges, when such operations occur on highways leading to business districts have more or less effect on travel of shoppers from the territories beyond. Ease and convenience are sought by shoppers and if an artificial barrier is erected in the pathway to the retail section where a shopper is accustomed to go, he or she may go elsewhere to trade.

Rebuilding of a retail business establishment, even if it means simply the installation of a new front on a store, will almost wreck a merchant's business while the work is in progress. Despite appealing signs erected by the merchant inviting trade the public will not enter and purchase but prefer usually to pass coldly by and shop in a more convenient and presentable place.

Accidents cutting off electric light and power supplied to a shopping district during busy daylight business hours will often have most disastrous effects on the day's receipts of the stores affected. Only the very small shops can get along without electric illumination—and lots of it. As soon as the lights go out the shoppers in the larger stores go scurrying to the street either through fear or because they are unwilling to buy goods not displayed under proper lighting effects.

A big fire in a down town business section often not only wrecks the buildings attacked by fire but also wrecks the day's business which would have been enjoyed by many nearby merchants. People simply will not proceed to shop while bells are clanging or a fire is in progress. They will stand by the thousands in the nearby streets watching the flames while the interiors of the big stores are deserted. Important parades have similar effects on retail business while they are in progress, although the crowds attracted may furnish business to stores afterwards.

Incidents such as an elevator accident in a big store in which one or more shoppers are killed or seriously injured, or where a child is fatally hurt in a moving stairway may mean thousands of dollars in lost trade. Women naturally keep away from the place until the gruesome incident passes from their minds. Newspapers carrying big advertising accounts of merchants seldom refer by name to a store where such an accident has occurred.

The life of the retailer, the largest rent payer in the modern city, is not always a happy one, and though at times he seems to be making great profits, his run of luck may be short-lived because of some of the unforeseen influences which affect his business unfavorably.

CHAPTER 10.

PHYSICAL FEATURES INFLUENCING LAND VALUES

> Physical factors materially affect values—Sun and shade. Areas open to high wind velocity, dust, noise from heavy traffic. Large open areas such as parks and squares—Hills and slopes restrict growth. Plottage—Water bodies—Sub soil conditions and the effect on districts underlaid with rock, quicksand and watery soil.

Man has progressed materially in conquering physical conditions which formerly operated to bar city growth. He has not, however, attained full mastery over the forces of nature which operate in various ways and in varying degrees to impede the development of cities.

Physical conditions existing in the boundaries of a city have an important effect on land values. A street that mounts a hill or leads to the bank of a stream is decidedly affected, as to the land values along its way, by such condition.

All streets, during certain periods of the day are in the direct rays of the sun. In the northern part of the United States streets running from southeast to northwest have sunshine almost continuously. In southern states east and west streets are affected in like manner.

On residential streets trees are planted in order to provide shade over the sidewalks, and when these trees attain full growth arching over the roadway and favoring the entire street with shade, they often add greatly to its general desirability and increase land values. They add an element of forest beauty that attracts most people. Given two streets in a neighborhood as nearly alike as possible except that one has shade and the other has not, without exception the lots on the shaded street will sell first and bring higher prices per foot front. This factor of value is recognized in the law. In condemnation proceedings undertaken for the purpose of acquiring property for a public use, courts allow testimony to be given as to the value of trees upon property sought to be acquired and the amount added to the value of a tract by reason of their presence.

In business districts sun and shade influence the desirability of a building site. Almost invariably the side of the street which is subjected to the rays of the afternoon sun in summer is less valuable, the difference ranging from 10 to 30 per cent. This condition affects merchants' window displays. The rays of the afternoon sun shining on a window display of fine and highly colored fabrics will fade colors and damage goods. Therefore awnings must be erected to shade the windows. While awnings furnish effectual protection from the sun's rays, yet in so doing they cut off light from the interior of the store and partially block the visibility of the window from the street.

The passer-by as a general thing avoids overhead canopies except as a protection from rain or the extremely hot sunshine and, in avoiding the awnings, walks at such a distance from the store window that window shopping is thereby reduced. Therefore, most merchants whenever possible seek locations upon a street which is benefited by shade during as many hours of the day as possible. Especially is this so of stores handling women's goods.

It is also true that during summer months pedestrians seek the shady side of the street and usually the foot traffic on that side of the street is much heavier.

This tendency is so marked that experts now recognize the shady side of the street as the most valuable side for retail locations, except where special features tend to modify or alter the situation.

In Chicago, the west side of State Street carries somewhat higher value to merchants than the east side. In Cleveland, on Euclid Avenue from the Square to E. Ninth Street, the difference in value of the south side over the north side, is recognized. The south side is the shady side during afternoon shopping hours and carries front foot values perhaps 25 per cent higher than those on the north side. Women's shops are located on the south side while men's stores line the north side.

In Detroit, the west side of Woodward Avenue between Campus Martius and Grand Circus Park, carries most of the women's stores and bears higher front foot values. In that city, however, two large department stores have located on the east side of the street and this fact has modified the difference in values to some extent.

In Akron, the difference between the two sides of Main Street, which runs north and south, is very noticeable. Practically all the large department and women's stores are on the west side of the street which benefits from afternoon shade. Likewise land values are higher on the west side.

Another factor which seems to influence, to a certain extent, the desirability of a street both for residence and business is the location with reference to prevailing winds. While sun and shade exert the chief influence during summer months, wind is a more important factor in winter.

Those who have attempted to round the Williamson Building corner adjoining the Public Square in Cleveland on a cold, blustery winter day can appreciate how wind force deters pedestrians from travel in such locations. The condition at this particular location is probably due to the proximity of Lake Erie and the wide sweep which the wind has across the open Public Square.

As a general rule, streets running in the general direction of prevailing winds are not so desirable for business locations as streets running at right angles to the direction of such winds. Pedestrians avoid streets where the currents of wind during winter months blow virtual gales, making walking difficult and distasteful.

These streets are also less desirable in summer months when during rain storms, the water is blown at times almost horizontally under umbrellas and against shoppers' faces. Street dust is also carried down the channels of these streets on windy days with much force, filling the eyes of pedestrians and covering their clothes.

Traffic noises occasioned by the passing of street cars, elevated trains and heavy truck and motor vehicle traffic is detrimental to residential district land values. People desire quiet neighborhoods for their homes, away from din and noise.

In business districts noise is not considered as particularly detrimental to the value of a street in a shopping section. If at all detrimental, it is more than offset by the benefits accruing by reason of the accessibility of transportation facilities afforded by the surface lines located upon the street.

Large open areas such as parks, squares, circles and playgrounds are considered advantageous to residential districts. They afford additional air and light and lend beauty and spaciousness to a neighborhood making it more desirable for the location of homes. People congregate in cities chiefly because of economic pressure. Almost every individual dislikes to live and move in cramped congested quarters and parks and open areas give to the near-by city dweller a spacious freedom that residents of smaller towns and in country districts always enjoy.

Cities planned in recent years make ample provision for open areas by platting, at frequent intervals, parks, squares, circles and playgrounds throughout the residential districts. The crowds that assemble in any public park on a summer night demonstrate conclusively the desirability of open spaces in home districts.

In business districts open areas have conflicting influences

Beneficial Influences:

1. Afford light and air to properties fronting upon the area.
2. Add to a location bordering upon the area, advertising value, because of prominence, added visibility and sign value.
3. Usually less noisy.
4. Often a transfer point for car lines, bringing thousands from various sections of the city who are potential shoppers.
5. Used frequently as a place for public assemblies of city dwellers, all of whom are potential shoppers.

Detrimental Effects:

1. Most retail businesses dealing in the substantial commodities of life, thrive on the competition of nearby stores. Open spaces permit the use of but one side of the street for shops and stores.
2. Usually difficult to cross in winter seasons during snow storms accompanied by winds. Sidewalks are more difficult to keep clean of snow and sleet.
3. Police regulation of traffic through such areas

often prohibits parking of motor vehicles, thereby drawing shoppers to districts where parking regulations are more favorable.

The most important physical factors influencing values on a city street are hills and slopes. The slightest grade on a city street reduces the value of the street as a shopping center. This is due to a number of reasons:

1. Pedestrians dislike climbing a hill or slope.
2. It is difficult to make store fronts conform to sloping sidewalks.
3. Displays of merchandise are less effective when placed in windows where the level of vision changes as the pedestrian passes.
4. Sidewalks in winter when slippery are more dangerous to pedestrians and are therefore avoided.
5. Pedestrians climbing the grade, especially if steep, are intent on the added difficulties in walking and are less inclined to observe window displays.

Chain store operators rarely locate a store on a corner where one street has a material slope in the sidewalk. Some have estimated that the detrimental effect to land value of a slope, from three to five per cent in degree, along the front of a building, is from fifteen to twenty-five per cent. A corner location is harmed even more where there is a sharp drop in the grade of the sidewalk along one side.

Over forty plans were prepared by architects designing one important building in a large American city, all made necessary by a slope along one street bordering the plot. Another building required over eighty sets of plans before a solution of the grade problem presented by a bordering street was solved to the satisfaction of the owner.

Steep hills such as occur in Duluth, Seattle, San Francisco and Akron restrict the growth of business to streets which parallel the contour of the hill. Business traffic, like water, always seeks a level.

Valleys and ravines occurring along the line of a street, either parallel to it and close enough to prevent the erection of business blocks between the ravine and the street, or breaking across the street at right angles to it, are damaging to the street as a shopping or retail district. Anything, artificial or natural, which breaks the continuity of stores is a serious detriment to values as determined by retail trade.

Plottage is the term applied to the physical features of a tract of land, such as size, shape and location with reference to other tracts, whereby a particular tract has the highest value for a given purpose. Plottage value varies with the location, and the particular purpose for which the tract is required. An operator acquiring land for the construction of an arcade running from street to street would consider a tract of land extending through from street to street, under one ownership, as having good plottage value for such purpose. Having once acquired several parcels for such an arcade connecting two streets, the combination of the parcels under one ownership would add plottage value not previously possessed by any one of the individual tracts.

Expressing the idea in a somewhat different manner; suppose that underlying an arcade, running from street to street, were two tracts of land, each 100 x 200 feet in size and each located fronting upon parallel streets and extending in depth so that the back lines met, the tracts of land and the portion of the arcade building built upon each tract being owned by separate owners but the arcade building operated jointly. Should either owner erect a wall on his rear lot line, blocking the arcade, the added value which each tract has by reason of its junction with the other and joint operation would instantly cease.

A strip of land, triangular in shape, formed by the junction of intersecting streets has plottage value for retail development because of the great amount of display window space afforded by the shape of the parcel and also because of the prominence of the position such a parcel holds at such an intersection.

Any corner tract of land in a business district has plottage value which will vary according to the size, shape and topography of the particular tract.

Sometimes the term plottage value is used to define the so-called ''hold-up'' value which an owner of a tract of land has by reason of the location of his tract in a strategic position with reference to a corner or a street frontage which makes it necessary for adjacent owners to acquire the land in order to adequately improve other parcels already owned.

Frequently "spite strips" of land are retained by owners dedicating land for a public street running adjacent to tracts of land owned by neighbors. These strips are sometimes less than a foot wide, but they effectually cut off access to the street and destroy the value of the adjoining parcel as a corner frontage.

Where cities open new streets through established districts in a city, excess land is frequently acquired on each side of the proposed right of way. These strips, sometimes quite narrow, are sold after the street is completed on a basis of value much higher than cost largely because of the increment of land value afforded by corner frontage on two streets. The opening of Carnegie Avenue in Cleveland from E. 89th Street to E. 107th Street left many such strips, some wedge shaped, which brought high prices per front foot by reason of their plottage value.

Shape has much to do with plottage value, so also has the size of a parcel. If an owner possesses a piece of land 10 x 50 in size, it is quite obvious that he cannot erect a fifteen story office building on it. Sizable office buildings have been built upon tracts having frontages of not to exceed 30 feet, yet the cost of a building on such a small tract is proportionally greater than a building constructed on a lot of double the frontage and like depth. The larger area has plottage value for the purpose of a large building which the smaller one does not possess. Land running from a street to an alley in the rear has plottage value over a lot that lacks rear access.

Generally speaking, a rectangular shaped area has plottage advantages over an irregularly shaped parcel. Occasionally a strategically located parcel, even though irregular in shape, is considered more valuable than one of regular shape.

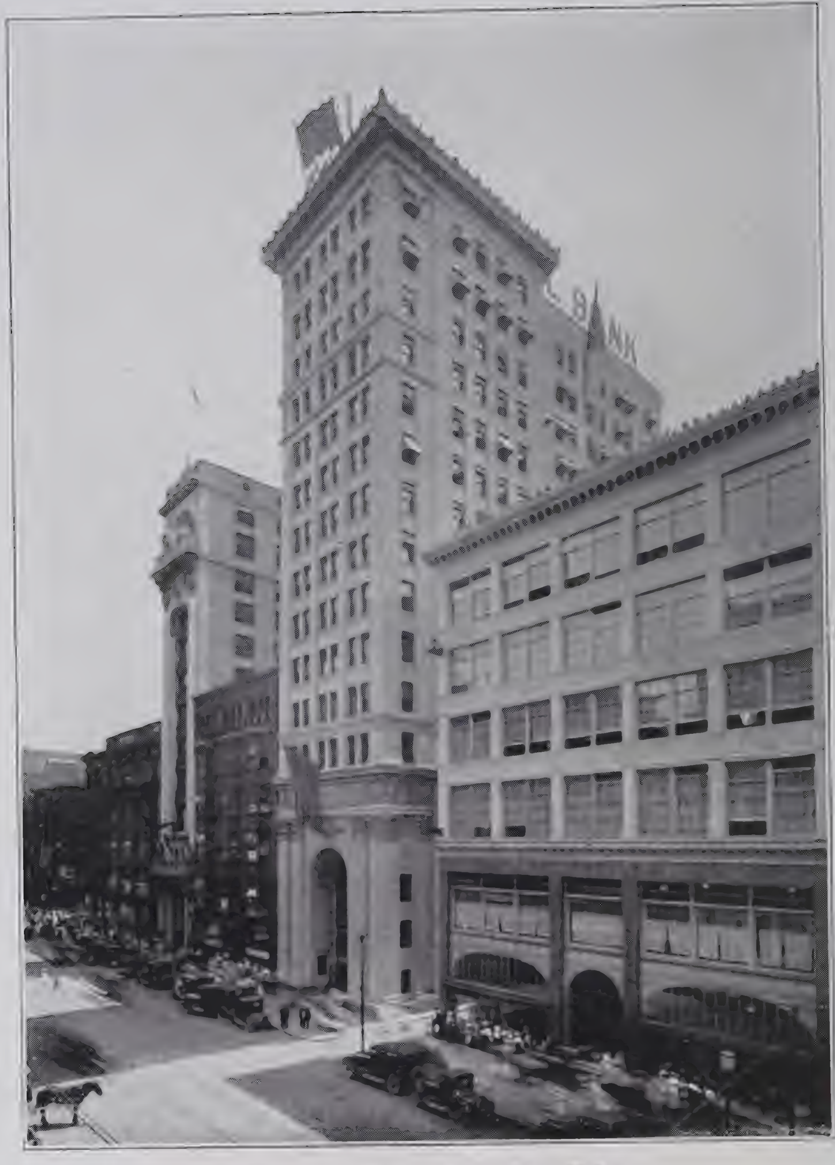
Rivers, creeks and lakes are always harmful to the development of a business street. Occasionally, in America, roadways have been laid out upon both sides of a canal, and business has located upon the street thus formed. This is unusual and whereever possible the canal is either bridged over its full length and width or filled in and made a part of the street. In early times

Broad Street in the city of New York and Canal Street in New Orleans had canals running through their centers.

Where a street crosses a river, the river is usually a bar to the further extension of the business district. Land within several hundred feet of the river is adversely affected by proximity to it and invariably has less value to merchants as locations for stores. Rivers and bodies of water may possess scenic advantages for residential districts and often add value to bordering land, but the reverse is always true in business districts. Minneapolis has its most charming residential district surrounding a beautiful chain of lakes. Detroit's exclusive Grosse Point overlooks the Detroit River.

Sub-soil conditions have a material effect on the values of streets competing for retail business development. The modern skyscraper must be built upon a substantial foundation. Millions of dollars are spent on foundations of some of the largest buildings before the framework rises above the street level. An area underlaid with quicksand, requiring expensive caisson and pile work in order to construct a foundation, is never as good as one underlaid with gravel or hard clay. Cost of a foundation adds to the cost of a building and increases the return which it is necessary for the land owner to obtain from his property.

Rock underlying a business district presents advantages and disadvantages to construction work, almost entirely dependent upon the size and cost of the building to be erected. Rock, though difficult to excavate, forms an excellent foundation for skyscrapers. Smaller structures find such substantial foundations unnecessary. It presents a very serious problem when rock is encountered in a subdivision where homes are being built as it is sometimes almost as expensive to excavate a cellar as it is to erect the superstructure of the house. One allotment in Cleveland was a financial failure due to this condition and almost the entire subdivision was sold at auction prices.



SINGLE PURPOSE BUILDINGS

These two tall narrow buildings on Euclid Avenue, Cleveland, are just bank buildings. It is very doubtful whether they ever can be anything else. The one on the left is freakish in that it is fourteen stories high, and only thirty feet wide. The one on the right is the equivalent of eighteen stories high, and is only forty-five feet wide. It was vacant for many months, when the institution which erected it merged with another. It was impossible to remodel it for retail use, so finally it was sold at a sacrifice to another bank.

CHAPTER 11.

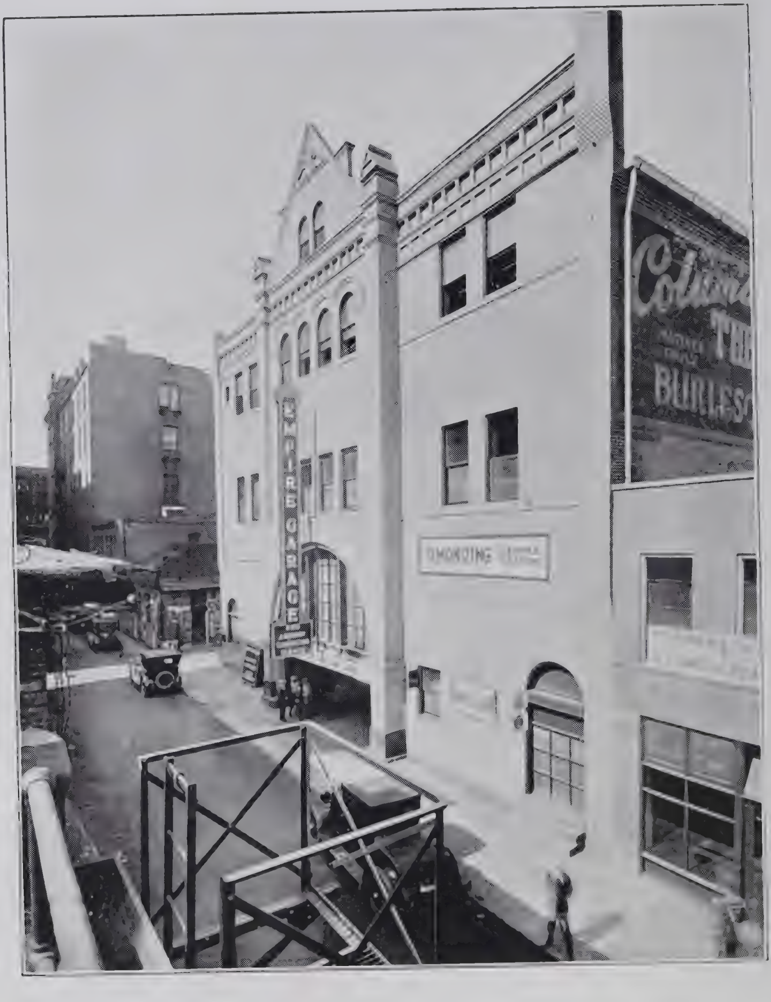
BUILDINGS AND LAND VALUES

A proper relation should exist between the value of land and improvements—Capital endangered by erecting costly buildings on cheap land—Skyscrapers have revolutionized building methods—Good architecture a potent factor in city growth—Old style stores and their defects as compared with modern structures for retail trade—The relation of site to building—Effect of building operations upon business in adjacent establishments—Improvements in office buildings—Hotels and theaters now use cheap inside land and space above ground floors—Modern factory subdivisions provide buildings with improved working conditions—Railroad, vessel and bus terminals the result of a demand for better facilities—Arcades develop new highways of retail trade between heavily traveled thoroughfares.

Agricultural land earns revenues from the fertility of the soil coupled with the enterprise of the farmer. Urban land produces income not because of soil conditions but solely because of its value as sites upon which to construct buildings. To make urban land productive, it must be improved with structures which may either be used by the owner or rented to others for use.

Since land in a city is so completely dependent upon buildings to make it produce revenue, it is a necessary corollary that improper or inadequate improvements upon land will tend at least temporarily to depress its value. A building unsuited to a location upon which it is placed not only tends to depress the value of its own land but reflects damaging influence upon other land nearby.

One of the most important considerations governing the relationship between land and buildings is the proportion of cost of the building to the value of the land. This varies according to the use to which land is being put. In residential districts houses are erected upon lots which should have a value of from twenty to forty per cent of the cost of the building. As the character of land changes from residential to business, land values increase so that before a residence located thereon is torn down to provide for a commercial structure, the land should have at-



UTILIZING A MISPLACED BUILDING

This burlesque theater was built on a short narrow street in Indianapolis, being sadly misplaced for theater purposes. After lying idle for about six years, a garage man conceived the idea of utilizing it for automobile storage. It was remodeled, and is now said to be a highly successful business venture. Many buildings not adapted for the purpose for which they are being used can have revenues greatly increased by proper utilization.

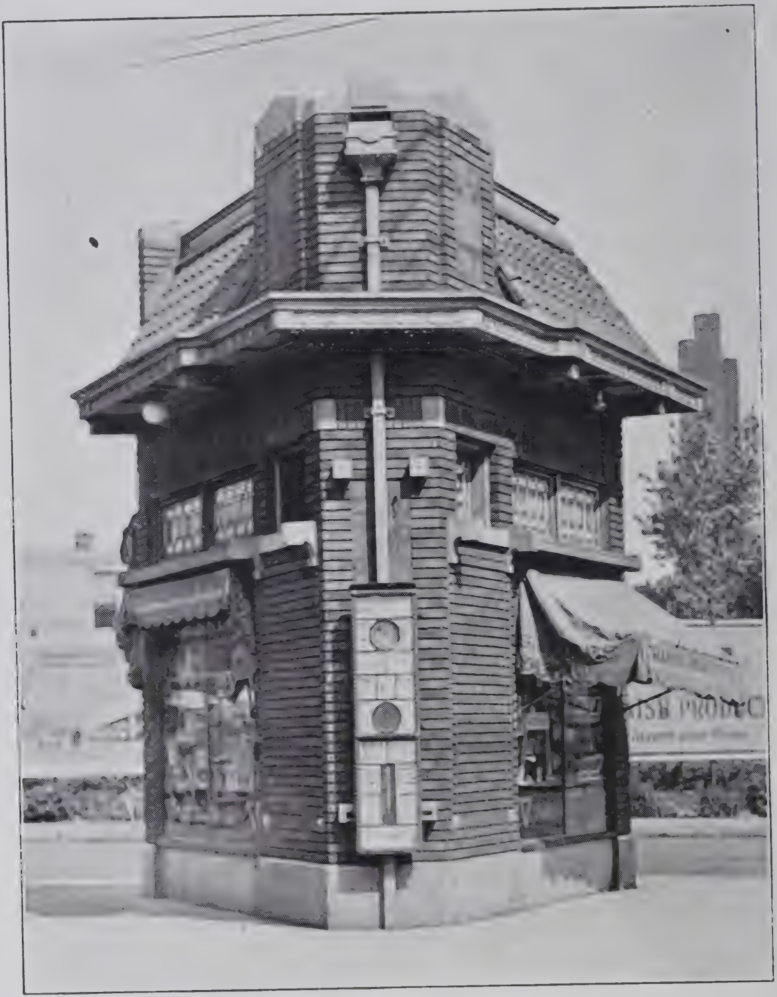
tained a value greatly in excess of the worth of the house. Land used for industrial plants is normally of considerably less value than the buildings located upon it. If the opposite is true, the use of such land is not economic and the property should be given over to more profitable occupancy.

In retail business districts where highest land values exist, the cost of a building should approximate the value of the land upon which it is located. Since the development of skyscrapers, often the cost of a building greatly exceeds the value of the land. However, for such a building to produce revenues commensurate to the investment, the site must be in the path of retail business growth so that ultimately the increase in the value of the site will offset depreciation in building value and during the life of the building provide sufficient revenues to earn an adequate return upon the value of the land and building plus such an amount which at compound interest will return the value of the building within the space of time which represents its economic life.

Chief destruction of capital comes when an expensive building is erected upon a cheap lot. It would be like burying gold in the ground to erect a million dollar office building upon land so far distant from the path of commercial development that the possibility of its ever attaining such a use is barred.

Often small buildings known as taxpayers are built upon land of high value in order to produce sufficient revenues to carry the land until a more suitable development is demanded. Such a practice usually leads to future profits, for during the period when the land is coming into favor for business use, sufficient revenues are produced to pay taxes, assessments and interest upon the investment.

The so-called ''skyscraper'' has been a development in building construction peculiar to America although other countries are gradually adopting it. Fifty years ago, the average height of commercial and office buildings in the largest cities did not exceed three or four stories. When the elevator came into general use after the Civil War, buildings attained a height of eight to ten stories. It was not until the beginning of the present century when the expense of heavy walls for tall structures was overcome by the use of steel and concrete for skeleton frame



Copyrighted, Underwood & Underwood

A BUSINESS "ISLAND"

At the intersection of Elston, Belmont and California Avenues, Chicago, this tiny building may be found occupied by a cigar and confectionery dealer. This triangular structure, 17 by 18 by 25 feet in size, is using an intersection which forms, probably, the smallest city block in the world. It indicates the intensive use to which land in large cities is being subjected.

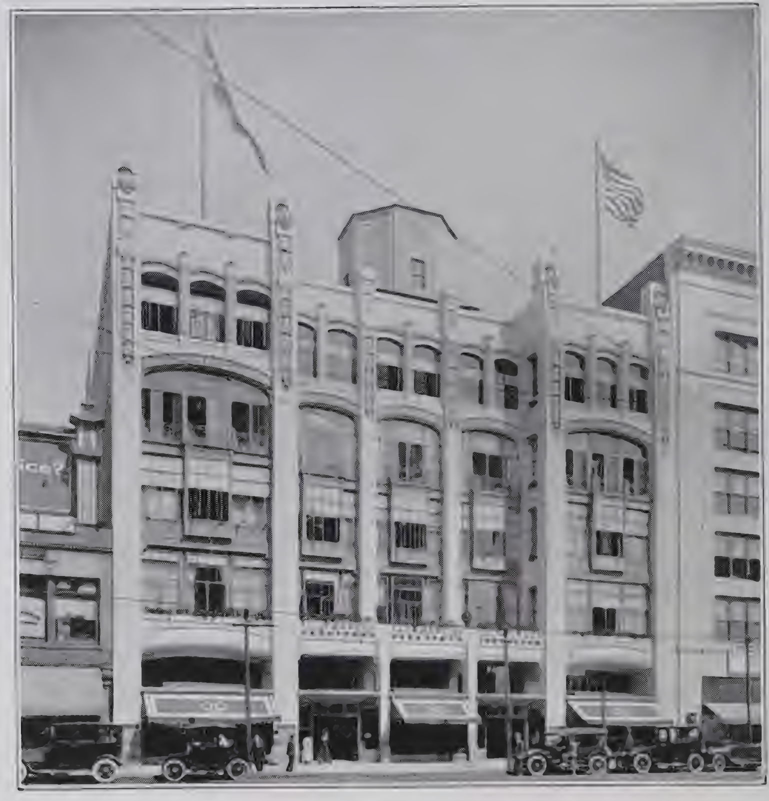
work of buildings that skyscrapers of from ten to thirty stories in height have been extensively built. This type of construction represents the most intensive use of land. Such a structure well planned and adapted to its site both structurally and economically anchors land values for many years and reflects value upon adjacent land.

Where rural land is just coming into use for business as on streets in the outskirts of a city, the character of buildings first erected often determines for a time, at least, the value of the land. Such districts furnish many sites which compete with one another. Usually the only difference existing, barring topographical variations, is in transportation facilities. Building operators may largely control values in such new territories by the type and character of development. Where such land is placed upon the market before there is an economic demand for it, it usually passes into the ownership of poor people attracted by low prices, who build cheap homes and create a shabby district which may act as a barrier to future high grade growth in that direction.

Buildings erected twenty, thirty, and forty years ago are as different in their appearance as were the vehicles of those days compared with the automobiles of today. Brick and stone were the materials generally used for constructing larger buildings. Interiors were finished in wood. Elevators were operated by water power and were slow moving affairs. Exterior and interior walls bore the weight of the structure and supported the floors of the buildings.

Today tall buildings are constructed upon skeleton steel framework sometimes supported by reinforced concrete. Walls are merely curtains enclosing the buildings and are themselves supported by the skeleton framework. Smooth face brick, glazed tile marble and terra cotta fronts adorn the structures. Sometimes stone is used as a veneer to lend the appearance of solidity. High speed electric elevators lift passengers at the rate of four hundred feet a minute to the top stories where business is carried on in offices with floors of concrete and walls of fireproof materials.

The name of the chief god which controlled the destiny of buildings thirty or forty years ago was Solidity. Builders believed that it was necessary to have great pillars and panels of brick and stone on the front of structures dedicated to retail trade. Doorways were recessed in brickyards and stone quarries. Wood was cheap and used lavishly on window fronts. Designers came slowly to appreciate the value of steel pillars but evidently believed it was rather fragile material, for pillars were used



ARCHITECTURAL CHARM IN STORE BUILDING

Regarded as an exceptionally fine piece of architecture, this retail store building has its three central sections recessed above the main floor, providing an unusual treatment which is striking and attractive. Even the water tower on the roof was designed in an interesting and unusual manner. Business men are devoting greater attention each year to the construction of artistic commercial buildings in downtown sections of large cities.

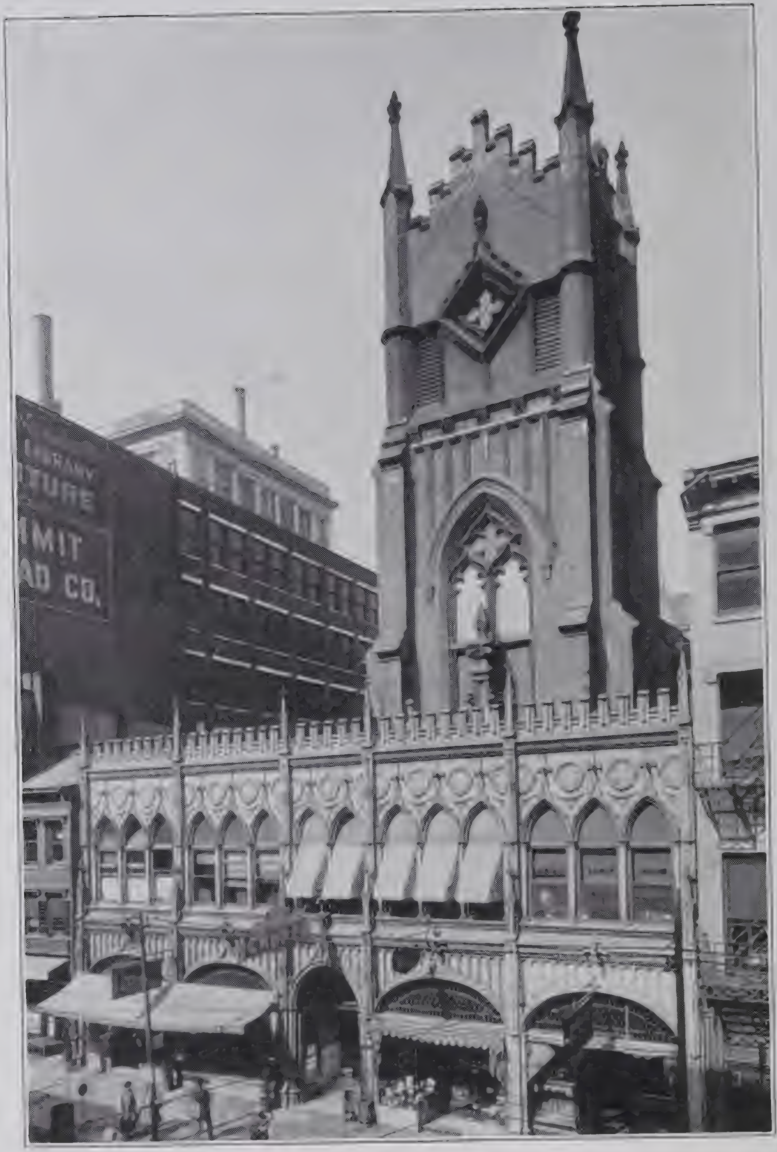
wherever possible, often occupying space which should have been reserved for window displays. Such was the age of our fathers.

Now conditions have changed. Beautiful store fronts of white tile, marble, and plate glass abound. Window corners are either cemented together or sealed with narrow metal rules. Clear spans of steel extend across a store front leaving nearly every available inch for display purposes. In larger cities where land values soar, the modern architect is even recessing pillars which are necessary to carry wide spans, setting them back five or ten feet from the sidewalk line and carrying the clear span in cantilever fashion so that in a fifty, sixty, or seventy foot front there is not a pillar on the street front, except the bearing ones at each side, the others being set back to afford a better window display. Space which is sometimes worth twenty to thirty thousand dollars a foot front is now devoted to display purposes instead of being used for the storage of building material.

That the public reacts favorably to this innovation is evidenced by the crowds which will pause in front of a beautiful modern store to view the goods displayed, as compared with the straggling few who stop to gaze into an old fashioned store front, no matter how well trimmed with attractive merchandise. The owner who rents the modern store can collect more rent than the one who has slept through the period of change and who is not aware of the improvement in public taste and appreciation.

Old fashioned windows were built almost waist high, with iron or wood screening below. Modern shops often have the glass front descending almost to the foot level, recognizing the tendency of pedestrians to look down rather than up. Old buildings had plates of glass divided in many places with wooden braces. Modern fronts have great expanses of polished plate glass, entirely free from obstructions.

Old time entrances often required the customer to ascend a step or two to enter a store. Modern storekeepers will pay thousand of dollars to eliminate a single step of a few inches, knowing that shoppers, as a class, object to stepping up even a few inches. It cost one Cleveland merchant $5000 to eliminate a four inch entrance step.



A CHURCH ENDOWS ITSELF

On Fourth Street, Cincinnati, this church, which formerly owned land fronting on three streets around it, sold off lots, one by one, until it now occupies but a small portion in the center of the original tract. In front, shops were built with an entrance from the street reserved for the church. Gothic architecture was employed to keep the commercial structure in harmony with the sacred edifice itself

Stores of a decade or two ago had open gratings in the sidewalks in front of windows, with area ways below which were usually catch-alls for rubbish from which foul air currents arose to greet the window shoppers. Today women buyers daintily shod in high heeled shoes will avoid a store window where there is even a small hole in the glass prism sidewalk coverings.

A generation ago a merchant felt satisfied with a single plate glass window in the front of a small shop having a frontage of fifteen or eighteen feet with a doorway at one side. Today great "V" or "U" shaped windows are installed, artistically set and treated, with space designs worked out in frosted or leaded glass above. Display space, the requirement of the modern merchant, is often more than doubled.

Gas jets or a solitary electric bulb were considered fit illumination in former days for a show window. Today great banks of high powered electric lamps are used and window illumination is an art in itself attracting the efforts of skilled engineers.

Wooden canopies extended out over sidewalks to protect shoppers twenty or thirty years ago. Today the shopper is protected from sun and showers by attractively designed marques or decorated awnings.

Wooden paneling of crude design was built in below and above old style show windows. Today rich and artistic grille in bronze or wrought iron, lend decoration and permanency to display spaces. Boardwalks, bordered by muddy gutters have been replaced by sidewalks of marble, tile, glass, and concrete, set off with curbs of granite or steel and pavements of asphalt or brick.

From first to last the modern front of a retail store has been changed as much as the wearing apparel of women who used to appear in hoopskirts and bustles but who now trip down town to shop in modern creations of the dressmaker's art, costing as much for a single gown as did an entire year's outfit of a generation ago.

Inside retail establishments the change has been quite as startling. Wooden counters extending to the floors have been replaced by modern glass cases with sanitary bases, utilizing the entire space for the display of goods. Heavy wooden chairs have been replaced by low backed dainty seats on which shoppers may rest while inspecting the stores' wares. Flat counters are gone and in their place are elaborate glass enclosed show cases, which display merchandise to view in an attractive manner. Cash girls have disappeared and in their stead have come speedy mechanical cash carriers and pneumatic tube systems. Dust catching shelving which extended to ceilings and was explored by means of ladders is now replaced by built-in cases, richly finished with heavy plate glass doors fitted with bronze handles.

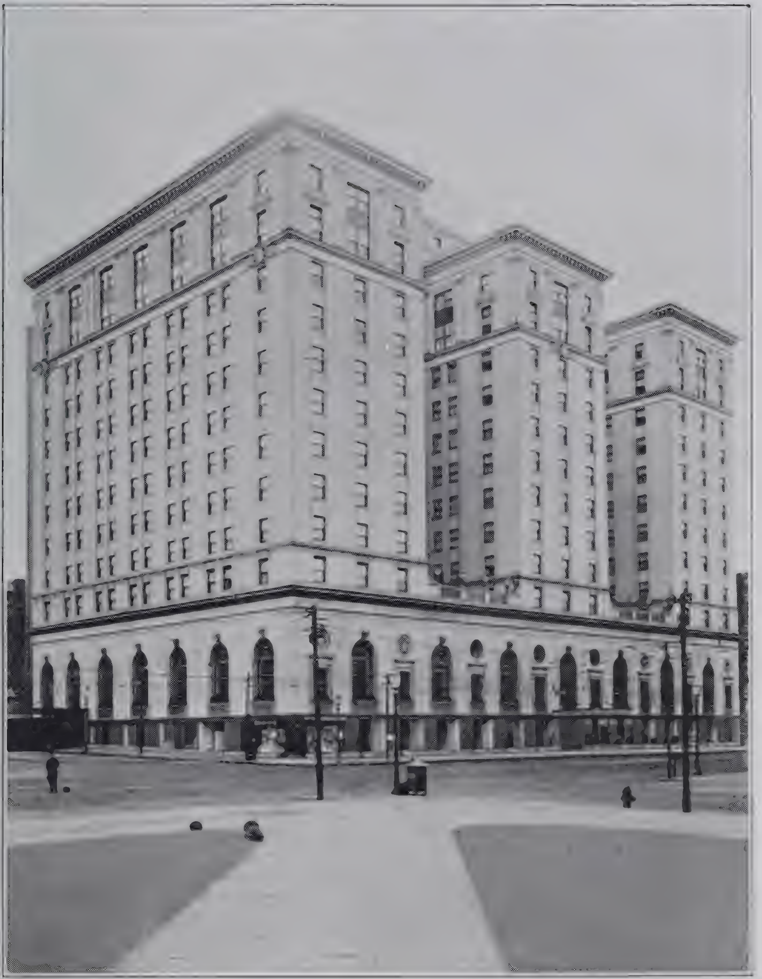
WHOLESALE
COLEMAN
RETAIL

SHOW WINDOWS ARE SILENT SALESMEN

This type of show window, brilliantly illuminated, helps to advertise and sell goods. Many old stores are being modernized by the introduction of new fronts and new show windows.

Elaborately equipped rest rooms, often with attendants or nurses in charge, vie with special playrooms for children where the latter may entertain themselves while mother is spending father's money. Dark, dingy wash rooms have disappeared and it is now the aim of the humblest merchant to seek the favor of his patrons with modern, sanitary equipment. They have found that it is good business to be up-to-date and that the extra care and expense lavished on customers pays.

Today, almost every inch of floor in an office building is utilized for store or shop purposes. Street entrances are on a level with sidewalks and corridors are lined with glass windows



NEW DEPARTURE IN HOTEL CONSTRUCTION

This large hotel building utilizes its street level frontage by the construction of stores, with the hotel lobby on the second floor, bountifully supplied with large attractively designed windows. Hotels in the past have been very wasteful of valuable street frontage which might have been utilized for retail purposes.

through which one may peer into stores or shops. Great forbidding stone entrances, the joy of the old time architect, are disappearing and trim marble or bronze entrances are now popular.

AN EVOLUTION IN THEATER BUILDING

Crowds of theater goers, particularly those who patronize the movies, are often compelled to stand in line on sidewalks until they can surge in to see stunts on the silver screen. This is not a picture of the interior of a theater itself but only the lobby of one in Cleveland, which is sixty feet wide, 150 feet long, and thirty-five feet high. Here hundreds may wait comfortably when crowds assemble to see some popular star. The theater proper is built back 325 feet from Euclid Avenue, but patrons are willing to walk back that far through the attractive entrance and lobby. It illustrates how cheap interior land can be used profitably for theater use.

Designers of hotels have discovered that in addition to the using of street frontages for shops, often where land values are high, the main lobby by being placed above the valuable ground floor area used for shops, has better light and view out upon the main streets. The Blackstone Hotel in Chicago and the Hotel Cleveland in Cleveland are examples of this new idea in the designing of hotel structures.

Even banks are departing from the idea that they must be encased in great monuments of stone and in some instances the latest banking structures are providing shops on the street fronts. Banks in some cities are segregated in districts by themselves. The idea of permanency as indicated by massive construction still dominates bank structures in such locations. Some banks are experimenting with main banking rooms occupying second floor space. The First National Bank in Detroit is an example. The new Union Trust Co.'s twenty story bank building in Cleveland has two banking floors.

Theater designers have demonstrated that it is entirely feasible to draw patrons back several hundred feet from a main thoroughfare and the result has been the construction in some cities of theaters on comparatively cheap inside land, access to which is had by long high vaulted entrance lobbies. In case of overflow attendance these entrance corridors shelter waiting hundreds until admittance can be had to the auditorium itself. Thus has such inside ground on deep lots on business thoroughfares been profitably utilized, leaving the high valued frontage for retail business development.

Even in outlying business districts unusually attractive stores are to be found in many cities. Drug and candy stores in many of those territories are bowers of plate glass, highly polished metals, and mirrors. The old "milk depot" has been replaced by a resplendent white tile store equipped with great refrigerated window spaces where milk and cream as well as other dairy products are displayed to advantage.

The old time grocery store, which had an odor all its own, reminding the shopper of a combination of rubber boots, dried apples and kerosene, is now fitted with attractively displayed pyramids of cans and cartons containing foodstuffs. Window displays are as dainty as a jeweler's and invite one to enter and purchase. Beautiful white tile fronts, easily cleaned, have replaced facades of wood and dingy brick. The whole method of building retail shops has changed for the better. Consequently, out-of-town people will travel many miles to shop in the modern stores located in town or city and land values are therefore generally enhanced.

The architectural development in factory and commerical buildings has been equally as great in many instances. Some modern workshops are palaces compared to the places where human beings toiled a generation or two ago. Exteriors are designed to attract the eye and interiors are likewise attractive. Regular factory sub-divisions are being laid out in some cities where buildings must set back from street lines to permit lawns with trees and shrubbery. Inside, all modern conveniences which invention and electricity can provide, have been installed. Is it little wonder that boys and girls who have toiled almost hopelessly on farms for many years are drawn to workshops like these, helping to swell population and contributing thousands of people to the modern town or city?

ART IN GAS STATIONS

Gasoline filling stations, indispensable in cities, can be constructed artistically, if so desired. Here may be seen a very attractive type to be found in Indianapolis.

Architecture of an improved character for railroad and vessel terminals has appeared. Monumental stations are being erected in many towns and cities. Boat landings with every convenience that can be devised are being provided while the latest terminal convenience in many cities is a union station for bus lines where changes to other lines can be made with speed, safety, and comfort. Public service companies in building such terminals recognize that the public appreciates good architecture and convenience in traveling and that the cost is more than repaid by public good will. These places recommend a town to the traveler who is glad to return again at his earliest convenience, bringing back his money to spend with local merchants.

AN ATTRACTIVE AUTO SERVICE STATION

This glass palace is to be found on a prominent street in Indianapolis, where it is used as a service station for changing oil in automobile engines. There are a number of runways under which pits are located, and a score or more of cars can be accommodated at one time. It is so different from the ordinary type of building used for this purpose that it is noteworthy.

Great stretches of modern buildings, many blocks in extent, make the modern city the mecca of thousands of people from the smaller towns and countryside. They make shopping a delight. They create interest in a city and make it the natural pivotal point to which to go in the event a person wishes to make a change of residence. As cities attract population they enrich themselves. Each new resident ordinarily becomes a producer or marketer of merchandise, thus adding to the sum total of wealth, and likewise is a consumer, benefitting, by his trade, other producers.

Arcades, devoted to pedestrian traffic and flanked by small shops sheltered from the weather by high vaulted glass roofs are to be found in some cities, where the same principle of utilization of inside land spaces has been made effective. Arcades to be a financial success must extend between two heavily traveled thoroughfares. When so located they often prove exceedingly profitable investments. They are frequented in bad weather and fair. Land which would otherwise be used for rear yard or storage space is given a rental value comparing not unfavorably to that fronting on a high valued thoroughfare.

ARCADES AN ECONOMIC ASSET

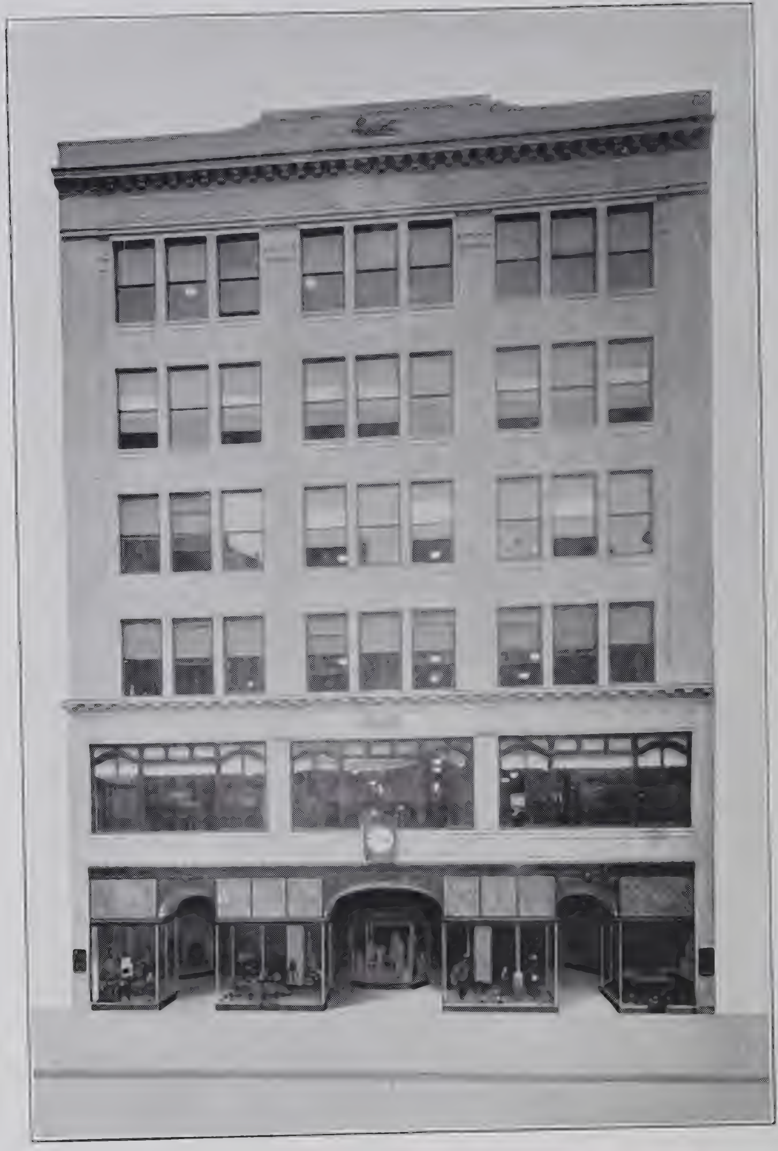
Several fine arcades in Cleveland extend between highly traveled thoroughfares. They are lined with attractive stores, the passageways being covered with vaulted glass roofs. Rear land lying between main business streets can be profitably employed in this way, and made to earn large returns. Over 200,000 shoppers pass through these three arcades daily.

Arcades in addition to serving the purposes of intensive utilization of otherwise almost useless land, also filter pedestrian traffic through from street to street, thus relieving the heavily congested areas. They are a contribution to business districts in cities and are commended to the consideration of those communities where they are not already in existence.

Failure of property owners to realize the importance of good architecture and the necessity of keeping land properly improved has resulted in entire retail districts shifting during the course of a few years, from one well defined section to another. Enterprising merchants, eager to keep pace with public requirements, will not hesitate to forsake one street and pioneer in a new territory where modern buildings are provided.

Business, once lost, is often difficult or impossible to recover, with a consequent lessening of the earning power of property naturally located where it should have earned maximum rentals but which is handicapped by reason of the fact that buildings demanded by up-to-date merchants are not provided at the time they are needed. Such examples of business exodus should be a warning to those owners of property who are backward in making the proper kind of improvements needed, either by the modernizing of old buildings or the erection of new ones.

It is often economic to destroy a building structurally sound to make way for the erection upon its site of a modern building in harmony with the character of the neighborhood. Owners are now recognizing this principle and the destruction of such buildings as the Pontchartrain Hotel in Detroit in favor of the new First National Bank building is an example which commends the business judgment of the owners.



PROPER UTILIZATION OF STREET FRONTAGE

This store, erected on a location where peak land values exist in Cleveland, illustrates a new type of retail construction. It is supported by pillars at each side on the street frontage. Two large pillars are set back ten feet, and the entire show window space is cantilevered out so that every inch of the frontage is used, either for display or entrance purposes. The two set back pillars may be plainly seen in the rear of the center windows. $80,000 worth of land is being used for display purposes instead of storage of steel columns.

CHAPTER 12.

CENTRAL BUSINESS PROPERTY

Holdings in main retail centers pay investors greatest returns—Land in such districts usually increases in value—Population increase reflects increased rentals and value—Peak values in different cities—Fortunes made in ninety-nine year leases—Central business property owned by limited number—Despite mismanagement values increase—Improvements in peak districts should equal land values—Skyscrapers and their mad race toward the clouds—Buildings from six to ten stories usually show the best earnings—High buildings generally become monuments—Ground floor should carry the land and taxes—Combination store and office or mercantile buildings pay best returns.

Down town business property in cities has made more money for owners than any other class of real estate.

Because of the capital necessary for an investment of this character, the number who are able to enter the field is limited. In many instances the growth of the city has been so rapid that men who bought themselves homesites in what was a residential neighborhood twenty or thirty years ago find themselves rich because business has overflowed in their direction, and demanded the use of their land for retail purposes.

It is said that the value of the business property in twenty-seven of the leading cities of the United States is worth more than that of all the railroads in this country.

Business property demands for itself such a valuation because of the necessities of all of the people living in a city where it is located. Despite the fact that business districts shift somewhat at times the inherent value of the property which is adversely affected remains tremendous. Examples are few where losses are sustained when land has been purchased at a reasonable market value in a business district of an American city. More often remarkable profits are made on the investment.

Business property is the best type of realty investment for the person able to handle a deal of magnitude. Even when the purchase price seems abnormally high, and old timers throw up their hands in horror at what seems to be a purely speculative venture, the growth of the city soon "takes up the slack," and a few years later the high price seems insignificant compared to what the property is then worth.

Business property in general, and down town land in particular offers the most in the way of increment and profit among all forms of realty investment. Many of the largest fortunes in the big cities of the country can be traced to timely and profitable investments in land desirable for business purposes. A careful analysis of the big retail business concerns in cities will usually demonstrate that they often have larger equities in their real estate holdings or leases than they have in the business enterprises which occupy the premises.

Increases in population in a city are invariably reflected in business property values. As the population grows, new business enterprises seek locations, competing in the payment of rentals for choice sites. This higher scale of rents which is established, and which is constantly moving on the upward curve, creates new land values, which in the larger cities of the country mount into many thousands of dollars per foot front.

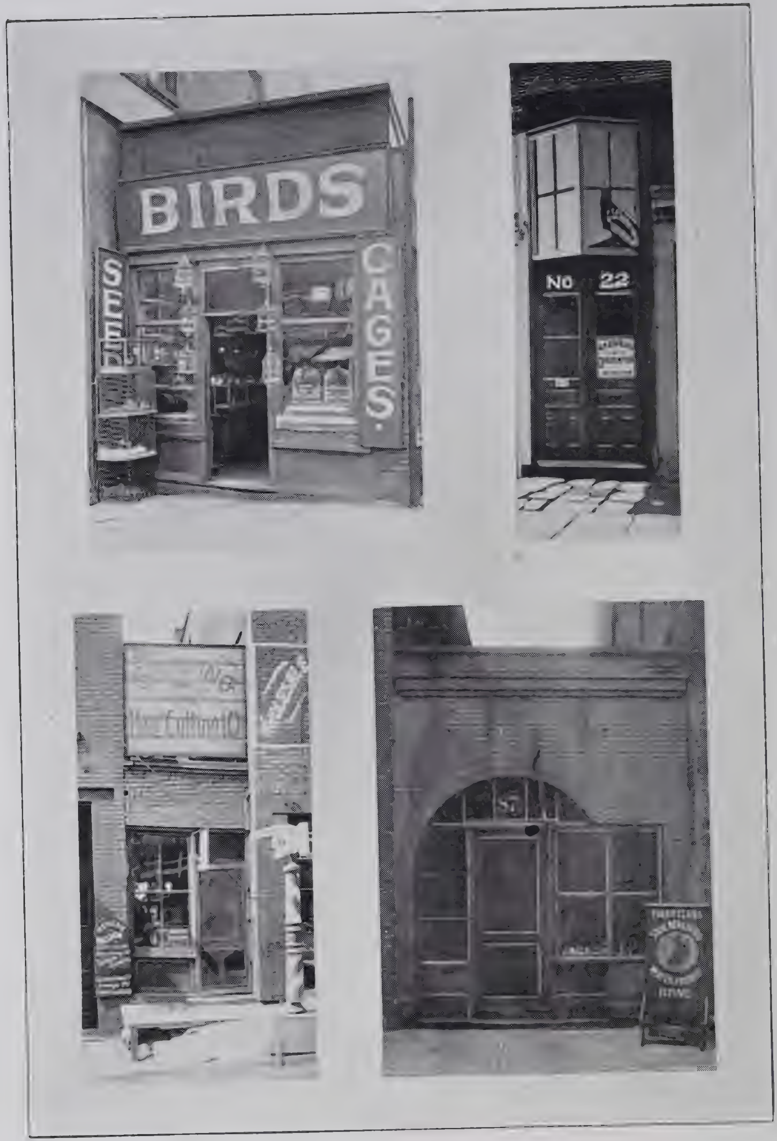
The practice of taking leases for ninety-nine years on business properties in growing cities, which has come into general favor in many American communities during the past ten to twenty years, has made vast fortunes for the shrewd lessees who had the vision to secure control of leases in the pathway of progress, improve them and then either sell for attractive bonuses or sub-lease at increased rentals.

The reason lease operations have been profitable is because they require comparatively small initial outlay of capital. The lessee in effect obtains a full 100 per cent loan from the lessor when he makes a contract to rent a tract of land forever at a certain stipulated rental. It is true that the lessee must post a bond, usually equal to at least two years' rent and taxes, to insure the lessor that the property will be properly improved, but that is not as difficult as finding new capital had he been required to buy the property outright. Leasing under long term is certain to become much more general in cities of a population of 100,000 or more, as its advantages become known and appreciated.

It is said that all of the land lying within the congested areas of cities of 150,000 in this country is owned by less than 15,000 people. An examination of the assessment lists of any city will show this to be practically true. How have these few people obtained possession of these greatest of producers of wealth this country possesses? The total rentals which accrue from the use of these properties probably exceed any kind of income known, and run into the hundreds of millions annually.

Many of these owners secured their properties by inheritance. The properties were either business locations occupied by their fathers, who bought them for a few thousand dollars when the city was a small town, or were the homes of the families a generation or two ago. Others were purchased years before by investors who somehow had an idea that the town might grow larger some day, and the property would increase in value. Still other locations were bought ten or twenty years ago at what were then considered enormously high figures, but which are now dwarfed by prices offered for similar sites. But year after year has passed and venturesome spirits have been found who would pay the prices demanded, and the increases continued. And so the race goes on. New business enterprises, seeking the cream of retail locations, will come into the city, and pay the ever soaring land values which are demanded, and before the ink is dry on the contracts and deeds, or leases delivered, receive offers of handsome bonuses for their bargains. It seems inexplicable, yet the fact has been demonstrated a thousand times in cities throughout the country.

Consider an example, for instance, in Cleveland, at the northwest corner of the main intersection of Euclid Ave. and E. 9th St. Fifty years ago, the site was occupied by a small home. Forty years ago, a church stood there for a decade. Thirty years ago, a six story brick office and store building was erected at a then comparatively small cost. For twenty years or more, the ground floor was occupied by a dealer in antique art goods, who paid the sum of $20,000 a year rent for the entire ground area. On Feb. 1, 1919, a group of five real estate investors leased the property on an initial valuation of $750,000, paying down $20,000, it is said, to bind the bargain. Three had quarter interests each, and the other two had eighth interests apiece. They immediately



INTENSIVE USE OF CITY LAND

Land in large cities becomes so valuable that every foot of street frontage is utilized for some purpose or other. Here are four little stores which have been jammed in between larger buildings. Midget stores of this type are common in most cities.

secured a bond issue for several hundred thousand dollars, and proceeded to completely remodel the building. They divided the ground floor into about a dozen stores, which were promptly rented out at a total income of $90,000 a year as compared to the previous rental of $20,000. The second floor was changed from offices to a retail business location for a large clothing house, and a big rent collected, as it is a very prominent location. Upper floors of the building were modernized and rents doubled. It was made a fine paying investment, and all on the initial payment of $20,000.

This is not all of the tale. A representative of a big syndicate of drygoods stores came along, and wanted that corner building and land to link in with several other adjoining sites for a mammoth ten story department store. Negotiations began. The big store agreed to assume the original lease at a rental of from $45,000 to $60,000 a year, the latter sum being six per cent on the valuation of $1,000,000; it agreed to assume and pay off $600,000 in mortgages, and the bond issue which was used to remodel the building and make it over into a profitable investment; last of all it agreed to pay the five investors an additional bonus of from $50,000 to $60,000 a year to themselves and their heirs forever for having had the wisdom to invest that particular $20,000 in that particular piece of real estate in that particular spot.

This is by no means an isolated case of fortunes having been made by men having the vision to invest in central real estate. Whole volumes could be written of deals of a similar character which have taken place in scores of cities throughout the country. These men saw an opportunity, had the courage to grasp it, believing that the city was growing, and that the property could not depreciate in value. Many business men scoffed when it was announced that these investors had leased the corner building on a valuation of $1,000,000. A new peak land value for Cleveland of $34,000 per foot is said to have been established by reason of this particular transaction.

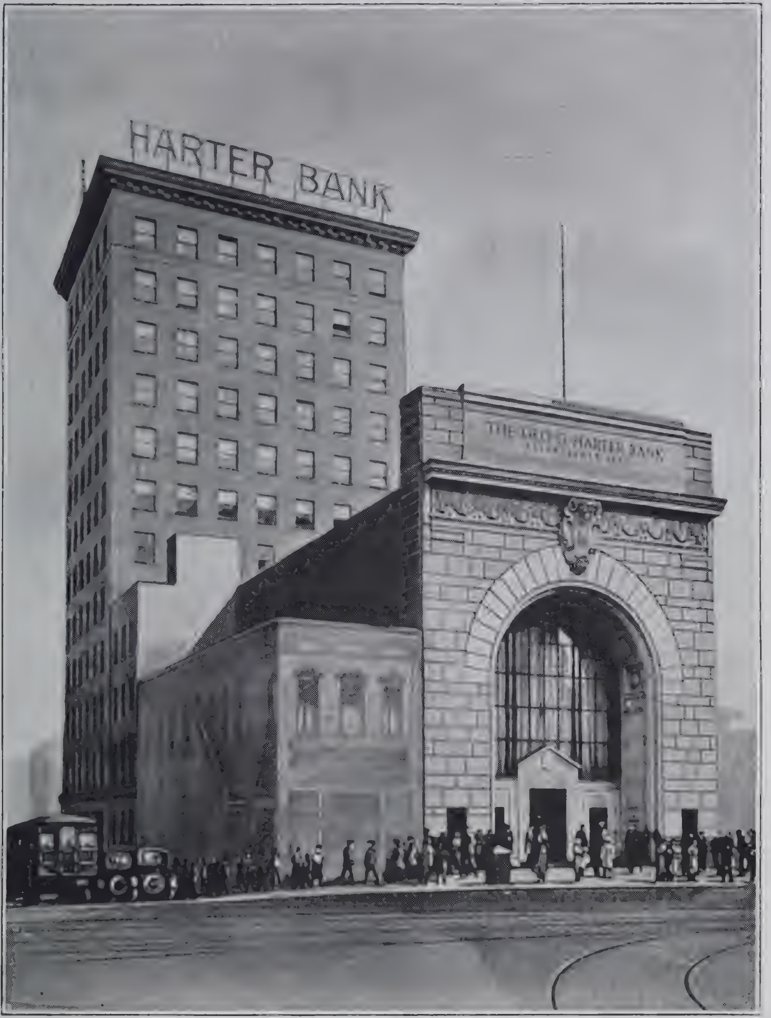
Nearly all real estate in a growing city has a consistent ratio of growth from year to year by reason of increasing population. Sometimes residential property does not increase in value very much beyond actual carrying charges. In nearly every instance, however, properly selected business property seldom fails to show rapid increment. More fortunes, both large and small, have been made in centrally located land, than in all other types of realty investment combined. There must always be a business center, and it can collect all the traffic can bear, and usually the owners of buildings therein see that it bears all it can stand.

Seldom fully appreciated, little understood from the standpoint of business management, often improperly improved, land in business districts has consistently withstood all assaults made against it, and shown handsome profits, or increases in value year after year. For the investor of means, it is an infallible source of greater wealth, for it not only brings in a return consistent with its value at the time of its purchase, if properly improved and rented but it is constantly adding increment to be capitalized into higher rentals as the years roll on, or the profit taken out in one sum when the property is sold.

Improvements on the highest priced land in the heart of a growing business city should, as a general rule, at least equal the value of the land. If a site is worth a million, it should have a million dollar building erected on it. This will vary in specific instances, but for the most part this rule is recognized by experienced realty investors. Rentals will justify the operation in nearly every instance. If a more costly improvement is made for the mere sake of having a larger building, it will often be found that the upper floors of such a structure will not yield a rental return adequate to the investment.

It is claimed by experts that the maximum return on a building will be realized when the structure is so built as to permit daylight to penetrate as low as the second story on the inside court of such a structure. This will furnish well ventilated, light space, which can be rented at maximum figures. Many skyscraper buildings in larger cities, it is claimed, are not financial successes because they are so constructed that they have many dark, poorly ventilated rooms which the average tenant will not occupy unless he secures a rental which is so low that it does not allow the owners of the building a reasonable profit on their investment.

Large department store managers seldom advocate a building higher than ten stories, and some of the largest in the country are considerably less in height. It is significant, moreover, that in many large cities a large majority of the big buildings are



BANK BUILDS AROUND A CORNER

When this bank in Canton, O., found it could not acquire a corner parcel of land on which to enlarge its quarters, it built around the corner, so that if it is secured later the monumental entrance can be made the center of a large building spreading to lots on each side. There are many examples to be found in large cities, where disinclination on the part of an owner to sell has caused the parcel to remain unimproved for many years. This bank, however, is looking forward to the time when the desired expansion can be made, and has planned its building accordingly.

monuments to individuals or institutions. Someone having a quantity of ready money or credit, and desiring advertising prestige, erects a large building so the name of the structure can perpetuate the builder's fame. Such buildings seldom earn as much return as if the money was loaned on good first mortgages or other forms of real estate investment. Count over the monumental structures in any city and determine if it is not true that the most of them are monuments which, if carefully analyzed as to earning power, are comparatively poor investments when the amount of net revenue is considered.

Many experts, including keen merchants, bankers, and realty investors, are of the opinion that the mad race toward the clouds with high buildings has about run its day, and that in future years greater care will be taken to determine the possible earning power of a structure as compared to its total cost and maintenance before great sums of money are spent in its construction. The National Association of Building Owners and Managers now has an advisory committee, which may be consulted regarding problems like these when new large buildings are contemplated.

A general principle for many years considered fundamental, is that the ground floor of a building should earn a return covering total land rental and cost of construction and maintenance of the ground floor proper, and in addition afford a profit on the entire investment, the theory being that the building above the second floor at least cannot be expected to earn much more than maintenance charges, and a fair return on the actual building cost involved in the upper stories.

A factor in large office building construction, which often interferes with the securing of a proper return on investment, is not only the heavy construction costs of such types of building, but the tendency to make them veritable palaces. Halls are lined with marble wainscoting; refrigerating plants serve iced water throughout the structure; massive bronze elevators with expensive fronts are used to transport tenants to upper floors; expensive tile floors are laid throughout; thousands of electric light outlets are provided; elaborate telephone systems are installed with outlets by the hundreds in every conceivable place; roof gardens are sometimes afforded for the use of tenants; costly monumental entrances are built, and often the valuable street frontage, which should be conserved for retail display space, is filled with pillars and panels because some architects wanted things to balance up in the completed picture. These structures may be good to look upon, but they do not pay the dividends that the six, eight, or ten story shop building, or retail stores, which for the most part line the streets in the immediate vicinity, return.

Combination store and office, or mercantile buildings, as a rule, show the greatest returns in business districts where high values prevail. Rentals from the ground floor are of a maximum character, while the space above, if properly planned and executed, will bring as good rentals as in the more monumental buildings.

So the central property district of a city is the real estate field in which maximum returns may be realized from increment in land value. Despite all of the defects in buildings, including misplacing of certain types, and regardless of errors in management, nearly every one can be made to show an annual profit. Sometimes this profit is buried in the land and can only be realized by disposing of the property. The only rival of the central district is the intensively developed crosstown district, where another new center of business is developing perhaps to repeat the same miracle which is to be found in the heart of almost any rapidly growing American city.

CHAPTER 13

BUSINESS PRACTICES AND THEIR EFFECT ON VALUES

Stores like to locate in districts given over to retail business rather than to be isolated—Small non-advertising stores seek locations near big advertisers—Business reputation of neighboring stores tend to affect the value of a district as a shopping center—Cash and carry stores compared with stores extending credit—Attractively dressed windows draw business—Special sales increase trade—Cleanliness an asset—Vacant stores depress a district.

Stores like individuals bear reputations, and have character. A store may carry a reputation for sharp dealing, unfair treatment, or it may be known for its policy of ''the customer is always right.''

A store may be what is known as a big advertiser, printing many columns each day in the local newspapers. Signs may flash large displays heralding the quality of goods carried by a particular merchant. Other stores do not use a column of newspaper space in a year's time.

Land values are indirectly affected by the business practices and principles of the merchants occupying stores located in a city's district. Perhaps the most definite reaction upon land values is the reputation certain districts in cities acquire by reason of housing prostitutes, bawdy houses, gambling dens, and, formerly, saloons.

Experts called into court to testify as to values of land located in a district bearing a bad reputation, insist that the values of the land are materially depressed by the character of occupancy. Even after a district has been purged of the causes of ill repute, still an evil reputation hangs over it and deters respectable people from frequenting it for years. Sometimes it it necessary for the rehabilitation of the district that entirely new buildings be constructed. Merchants hesitate to pioneer in sections bearing an unsavory reputation even though it stands directly in the path of the development of retail stores.

Businesses of questionable character always depress values of land. Reputable merchants will not open shops in the neighborhood of such businesses. The character of the tenancy is correspondingly low, irresponsible and often criminal. Rentals become difficult to collect, buildings deteriorate under rough usage and suffer for lack of repair and consequently land values are lowered.

A street given over to pawn shops, second hand stores, cheap jewelry shops, and second hand clothing stores bears a reputation as a low class shopping district and high grade retail business will not enter such a section. Values are depressed, landlords are unable to obtain rents commensurate with the relative location of their properties as compared with other down town business streets. It is always the aim of a high grade merchant to locate on a street where he is surrounded by businesses bearing good reputations for integrity. Such a district carries high land values.

Likewise there is a marked tendency upon the part of small shops of the nonadvertising type to seek locations near large department or specialty stores running daily ads in the local newspapers. Crowds attracted to the large store by the advertisements furnish the smaller store with patrons as well. Certain large chain stores never advertise but seek what is known in real estate parlance as one hundred per cent locations in the best shopping districts. Here they snuggle down along side of a mammoth department store and can afford to pay high rents because of the fact that they are subject to no advertising expense.

There is an advertising value in being located near to a large store with a good reputation which is readily seen and quickly capitalized by shrewd small store operators. One chain of millinery stores operating successfully in many cities in the United States pays rentals for one hundred per cent locations aggregating as high as twenty per cent of the gross revenues of such stores per year. These stores do not advertise and depend entirely on location and quality to sell goods.

Proximity to a bank or savings and loan company, although the institution advertises heavily and draws many people to its building, is not considered by merchants as productive of much retail shopping trade. Some merchants shun such a location for a retail business. Banks, although heavy advertisers both in newspapers and by signboards, encourage thrift and the conservation of money. It is not a type of advertising that induces people to part with cash in exchange for commodities. Furthermore the bank is dark during evening and night hours resulting in the same effect to the district as a break in the continuity of stores.

AN UP-TO-DATE STORE FRONT

Busy retail streets in large cities are lined today with attractively designed store fronts. Here is one in which marble, glass, and electric lights form a combination which is irresistible to the average "window shopper."

Paradoxical as it seems, stores that operate on a cash and carry plan are much smaller in size as a class than those extending credit to their patrons. American housewives, who form the bulk of our shoppers, insist on the extension of credit and often refuse to patronize a store that requires the payment of cash for goods when purchased. Therefore, credit stores of the highest class pay best rentals in high grade shopping centers.

However, there is a class of so-called credit clothing stores where a worker may purchase a suit of clothes for a dollar down and a dollar a week until paid for. Such stores detract from the desirability of a shopping street and when too many of this class of stores settle in a district the better grade merchants are crowded out, and land values consequently decline.

Merchants in this highly competitive age realize the value of a credit trade. A customer acquiring the habit of buying on credit, does so easily and purchases are more freely made than where it is necessary to pay cash. Then, too, with monthly statements small circulars can be mailed to customers advertising specialties carried by the store. This form of advertising is said to be productive of business.

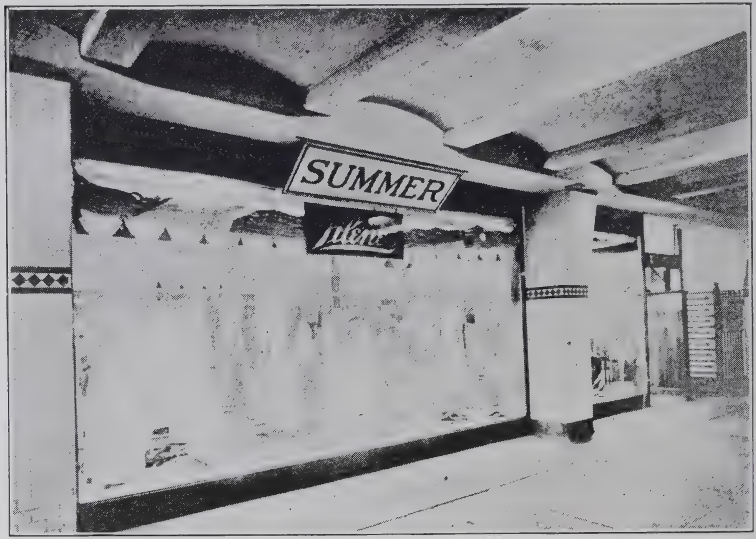
Credit shopping generally is the practice of wealthy shoppers and stores having such patronage must extend credit. Since such stores pay highest rents and establish high land values it follows as a corollary that credit shopping districts bear highest retail land values.

Stores maintaining attractively dressed windows draw shoppers and in so doing benefit neighboring shops. It is a trade maxim that goods well shown are half sold. The modern store window has been designed to show to best advantage the merchandise displayed in it. From the interior finish to arrangement of the goods shown the art of the window dresser is directed towards making the passing shopper enter the store and buy.

The importance of window displays is the realization of the past twenty years. Formerly little thought was given to how a window was constructed, lighted, dressed and arranged. Now men make a life work of this one task alone. The merchant who is located adjacent to a store having enticing window displays will profit from the taste of his neighbor.

Of equal importance is the attitude taken by a shopkeeper in the care of the interior of his store. A dirty, untidy store is unattractive and repels shoppers. The merchant permitting such a condition not only harms his own business but detracts from the business of his neighboring shop keeper by lowering the standard of the immediate neighborhood.

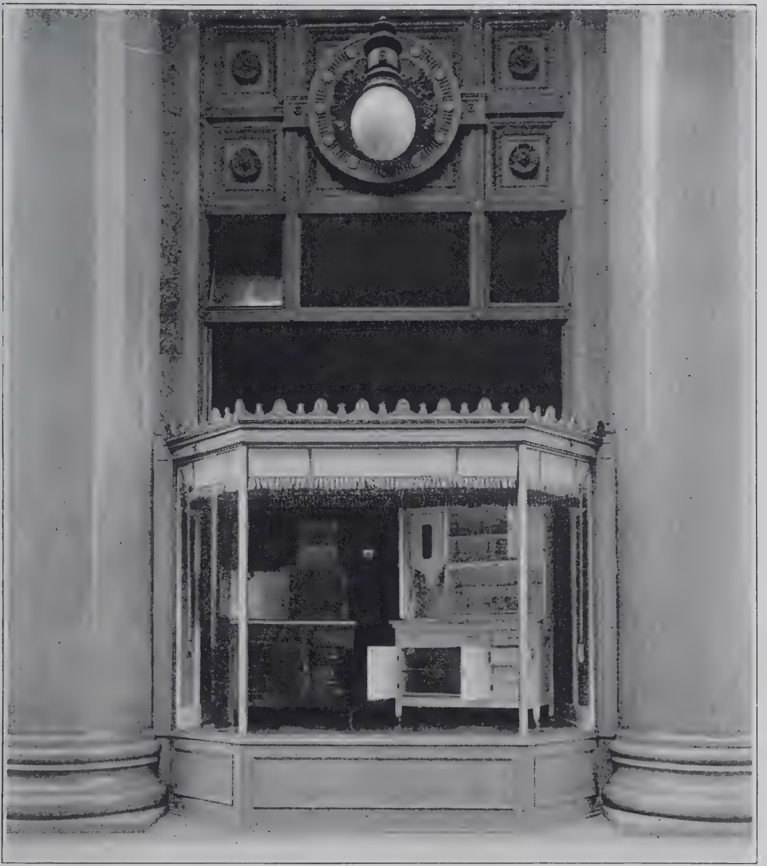
Some stores conduct Friday sales, bargain days and other schemes designed to draw shoppers within their doors. Such practices are usually productive of good results to the merchants conducting them as well as to neighboring store keepers who obtain a trade reflex from the crowds attracted. This depends entirely, however, upon the character of store conducting the sale and its reputation for fair dealing. A shopper leaving a shop dissatisfied with treatment received will carry her grudge to other stores.



A SUBWAY WINDOW DISPLAY

Large stores in New York, Boston, and other cities, where subways are in existence, arrange to have stations emerge through their buildings. This Summer St. station enters directly into The Wm. Filene Sons Co. store in Boston, and on the subway level attractively trimmed show windows are constantly maintained.

A merchant awake to the psychology of the average shopper is scrupulously careful to maintain the exterior of his store clean and attractive. Sidewalks during winter must be kept clear of



INCREASING SHOW WINDOW EFFICIENCY

The architects who built The Peoples Gas Co.'s fine office building on Michigan Avenue, fronting on Grant Park, Chicago, adorned it with stately pillars of granite, placing large plate glass windows in the recesses. It was found that passersby would not step in between these pillars to look at paraphernalia the gas company wanted to popularize. Windows then were projected out to the street, and their efficiency as advertising mediums was greatly increased.

snow and slush, and in summer frequently cleansed with water. Signs should be kept brightly painted and repairs made promptly and if possible during hours when few pedestrians are inconvenienced.

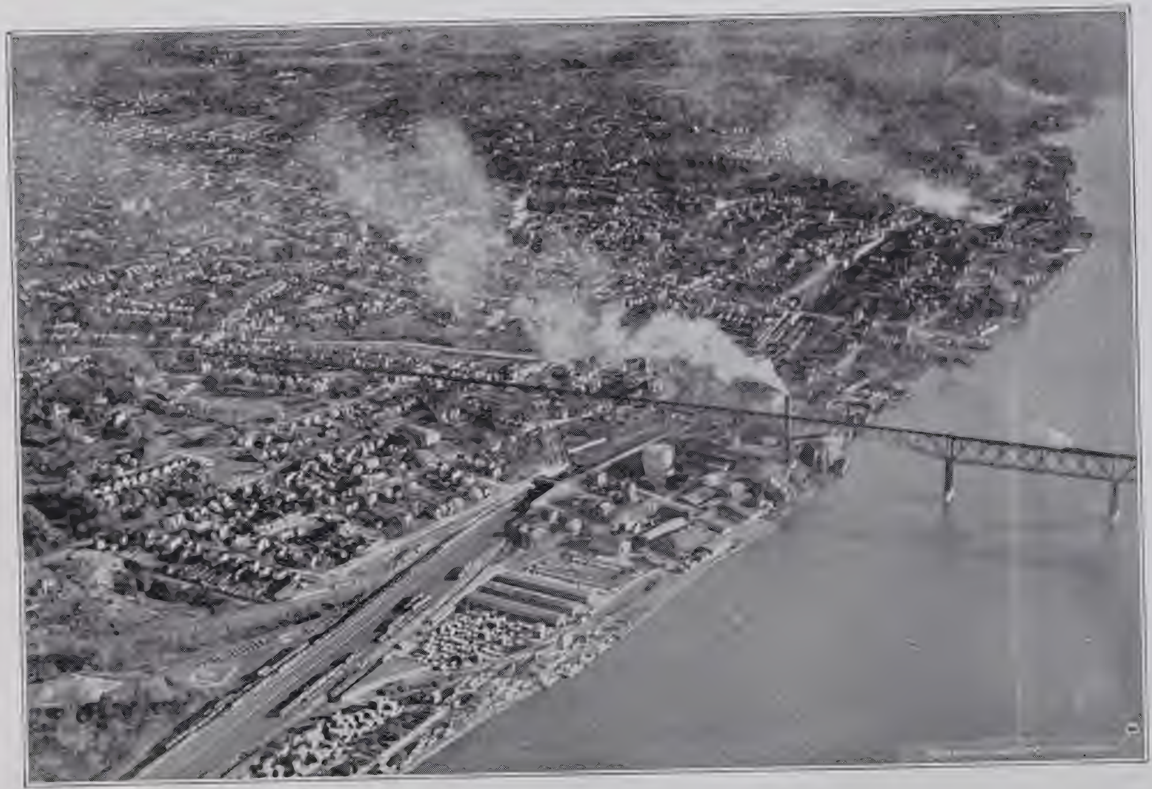
Large department and specialty stores usually maintain doormen to meet automobiles and assist women shoppers to alight. A courteous doorman will add to the good will of his employer by the manner in which he performs his duties. Such practices entice shoppers to make use of this service, adding to the number of potential customers and reflecting values upon adjoining space occupied by other merchants.

Indirectly good business practices among merchants upon any shopping street will add not only profits directly but, by making the district attractive to others who seek business locations, will add rental value to adjoining space and thereby enhance land values.

Store room vacancies tend to depress values. A room vacant announces to the world that for some reason the site is unattractive to merchants. Perhaps the rental demanded is too high, or the room may be undesirable for other reasons. Furthermore it is an unproductive unit contributing nothing to the business of the area in which it is located. There is nothing in the windows to attract shoppers, often the premises are permitted to become dirty and unkempt. A vacant store is almost as discouraging to pedestrians as a sidewalk obstruction, and operates upon values during the vacancy in much the same way, but to a lesser degree.

The progressive building manager has learned the wisdom of painting over windows of store rooms which are vacant so as to obscure from the gaze of the passerby the condition of the interior. Where for some reason a store must remain vacant for some time, it is wise to follow the practice suggested. By so doing the effect of vacancy upon the adjoining store keeper will be diminished. Prolonged vacancies are poor advertisements of the productivity of any property.

So, in general, good or bad business practices not only affect the individual merchant in the success of his business, but reflect upon others who are located nearby. Likewise, the desirability of the district as a high grade retail center is indirectly affected.



A TYPICAL RIVER CITY

Poughkeepsie, N. Y., as seen from the air, is typical of cities which spring up on river banks. Starting at an original settlement such cities spread out in various directions back from the waterfront. Railroads and vessel companies usually preempt the riverfront for commercial uses instead of at least a portion being reserved for the use of citizens for recreation purposes. In the above picture may be seen a part of the great steel bridge, the only one spanning the Hudson River, south of Albany.

CHAPTER 14

SHIFTING BUSINESS DISTRICTS

Growth usually is away from railroad stations and harbors —How New York City has always extended northward —Los Angeles has changed its direction of growth—Cleveland makes three distinct shifts—How a San Francisco territory changed from homes to business—Conditions in Spokane, Portland and Cincinnati—Why business shifts to new districts—How outlying retail districts grow towards each other—Change in location a natural law of growth, taking from ten to forty years. When values reach a peak extensive development actively begins elsewhere.

Shifting business and residential districts present one of the interesting phenomena of city growth which invariably results in a distribution of land values.

Every city of size and importance has witnessed remarkable changes from the time it was a small town. Despite valiant efforts on the part of property owners to retain business in certain districts the transition has gone steadily onward and in all probability will continue in the years to come, regardless of any element of permanency which may attach to present day main business areas of cities.

Change in the character of utilization of land seems to follow definite rules, many of which have not as yet been standardized. If the secret of growth of business districts in cities were fully known many fortunes would be made by farsighted investors who would be able to determine where development would next occur.

There are always evidences, however, of the general direction in which a city is growing and realty operators are constantly studying future conditions, hoping thereby to gain a share of the increased values which come to so many land owners in growing cities.

Growth in a community may be away from a railroad station toward a good agricultural district. In a town built around intersecting main highways it is difficult to ascertain until the place has considerable population on which street the better development will finally come. This is often influenced by the opening of a choice residential district, towards which business development steadily progresses thereby increasing land values, by establishing a main business artery towards it.

While a community is still in the small town stage the business district will not change greatly over a period of some years. With industrial expansion, new population pours in, the town gets "growing pains" and starts to expand rapidly. At that point shrewd operators will invest heavily, depending on future increases in land values which are likely to occur on a large scale.

Perhaps the most noted example of a changing business district is to be found in New York where business for a century or more has crept steadily northward on Broadway. The original settlement was in the neighborhood of Broad and Wall streets. Broadway was a highway leading to the north end of Manhattan Island and the farms of early settlers. The city grew and a new district of importance was established at Broadway and Fourteenth street. Then it jumped to Twenty-third street and later pressed its way out to Central Park. Fifth Avenue, once unimportant as a business thoroughfare, at first merely took the overflow from the main business avenue but later rapidly developed a glory all its own. Enterprising merchants banded together to definitely promote the interests of Fifth avenue. New retail businesses settled there and today it excels Broadway as a great retail street and is perhaps the greatest retail artery in the world.

The Broadway Association of New York City in 1923 estimated that land values with one exception dropped from 8 to 125 per cent on Broadway between Eighth and Thirtieth streets between 1910 and 1923 due to northward shift of trade. The one exception mentioned was a block fronting on the west side of Broadway between Twenty-fourth and Twenty-fifth streets, where there was an increase of 39 per cent. On the west side of Broadway along the route indicated, the total estimated depreciation amounted to $11,399,500, and on the east side $6,466,000 an estimated total of $17,865,500 for the entire territory, according to the report of the association.

Los Angeles, the marvel city of the Pacific Coast, perhaps has seen more rapid business changes than any other large city in the country. Thirty years ago, or less, the main business district was located on Spring, Main and Los Angeles streets, near the Plaza. This section was later deserted by important business enterprises for Broadway between Fourth and Eighth streets. At that time the south end of the city seemed to offer fine residential possibilities. With the development of Seventh Street to-

AMERICA'S MOST FASHIONABLE SHOPPING DISTRICT

Fifth Avenue, in the vicinity of E. 42nd St., New York, is said to be the center of the highest grade retail business district in the world. Despite the fact that there are neither surface, elevated or subway cars, this thoroughfare is congested most of the daylight hours with automobiles and busses. Here is an example of a street which owes much of its success to the efforts of an organization of merchants formed some years ago to foster the development of Fifth Avenue into a retail business street. It has now passed Broadway in importance in this respect.

wards the ocean to the westward a change took place and business took a right angle turn and proceeded westward along Seventh and paralleling streets towards new high grade residential districts developing between the main business district and the ocean.

Cleveland has seen four distinct shifts within a century in its business districts, due to the insistent southeasterly growth of the city and the expansion of residential districts in the same direction. What business existed during the first fifteen to twenty-five years of the life of the city was carried on along streets paralleling the Cuyahoga River and chiefly in the "flats" district located on the banks of the river. The early business district of old Ohio City on the west bank of the Cuyahoga River, which later became a part of Cleveland, was in the "flats," west of the river and followed Main Street up a hill, westward, toward the location of some of the early high grade homes.

The second stage was witnessed when business climbed the hills out of the valley through which the river flowed and started southeastward, toward what was then the distant Public Square. Superior Avenue and the district between the river and the Public Square then continued for many years, to be the principal retail shopping center of Cleveland.

Beginning about 1890, stores began to pioneer in locations east of the Public Square, along Euclid Avenue. Old Erie Street, now E. 9th Street, proved a barrier for some years but finally about 1907 business extended across the street slowly for a time and then about 1920 like wild fire until 1923 the district from E. 9th Street to E. 22nd Street, was completely given over to business. In each case the shift was accompanied by the erection of more modern buildings which more adequately and efficiently served the needs of tenants.

Spokane, Wash., illustrates well the shifts occurring in business districts. Riverside Avenue, in 1907, was the city's main business street. Main Street which parallels Riverside, was a saloon district and seemed then unattractive to business of a higher order. Ten years, however, saw a distinct westerly shift in the business district over to Main Street, a distance of five or six blocks, from what had been the eastern boundary of the old retail business section on Riverside. This shift was largely due to the relocation of a large retail store which formerly maintained its place of business at Riverside and Washington Streets, and also to the change in the operations of a large railroad system, which bounded the business district on the south.

Portland, Ore. has experienced three shifts since its original location on the banks of the Willamette River in 1845. The trend in that city has been away from the banks of the river towards the north. As in so many river cities the early business streets paralleled the river. This section continued in favor for many years and progress in business advance was made along streets running in the same direction as the early main business thoroughfare. It was not until about 1900 that business marched at right angles to the river along Washington Street, which is today the main business avenue of Portland.

Thirty years has marked great changes in business districts in Seattle, Wash. The direction in this case, however, has been paralleling the docks bordering the harbor and proceeding northward until today the retail shopping district is on Second Avenue between University and Pike Streets, seven blocks distant from the district of 1890. What was then the chief retail district has given place to banks and financial houses.

Cincinnati has experienced a change in direction of growth similar to that of Portland. Early residents did their shopping on Front and Second Streets, which extended along the north bank of the Ohio River. The next shift was up a slight grade to another parallel avenue, Third Street, then up to Fourth and Fifth Streets. Today the direction of growth is at right angles to these streets and in a northeasterly direction reaching out towards the fine residential developments of Avondale and Walnut Hills.

What has been the experience of the cities mentioned has been likewise the record of such cities as Chicago, Omaha, and numerous other communities. The trend seems inevitable in a city as it grows larger. It is impossible to check the shifting of business centers. The business of a city cannot be limited to one location. As it fills up a district, new locations for retail businesses must be found. The faster the growth of the city, the quicker the changes occur. It is retail business which draws the greatest number of people to a section and stores prosper most that are located where traffic is the greatest. As old districts change, due to city growth, increase in population, obsolescence of buildings and other factors, traffic follows to the new shopping district and "the olde order changeth, yielding place to new."

The growth of business in a city normally increases the value of the land in the business district and necessitates an increase of area to accommodate new shops and stores. This force inevitably tends to pull business constantly away from old to new districts where better, more moderate and adequate accommodations are obtained. It is doubtful whether the destruction of buildings immediately upon their becoming unfitted for high grade business and the construction of modern buildings would serve to anchor business in one district permanently.

Many cities have witnessed the blossoming forth of new and important business sub-centers at points far removed from the main retail center. These sub-centers are ordinarily upon a main artery of travel leading from the principal retail business district to the local center and beyond. Once established, there is a constant tendency for the intervening area between the principal district and the sub-district to fill up with tributary business establishments until the entire frontage is lined with stores thus creating long business streets.

This tendency for business to grow both ways is evidenced in Cleveland between East 55th Street and the down town retail district on Euclid Avenue and also between East 55th Street and East 105th Street where the Cleveland Real Estate Board's valuation committee appraised land in 1923 at $8000 per foot front, 100 feet deep. This is nearly five miles from the center of the city and indicates the growing importance and value of land in such sub-centers. Retail business moves from both ends toward a meeting place. In a few years the entire street will be lined with business places as a result of this growth.

Sometimes a great fire or public catastrophe is the cause of a change in use. Before the earthquake and fire in San Francisco, Van Ness Street in that city was a high grade residential street. With the rebuilding first came mushroom business growth, later to be superseded by fine permanent business blocks, housing excellent retail establishments and marking the final step in a progressive and beneficial business shift.

Artificial influences will cause the shifting of a business district. Some large public improvement will require a great amount of land, businesses are compelled to move out to make way and have to find new quarters. This migration is purely artificial and is due to causes which are readily recognized.

TYPICAL CROSSTOWN BUSINESS DISTRICT

This business center, at Euclid Ave. and E. 105th St., Cleveland, five miles from the city's central business district, enjoys land values as high as $8,000 per foot, for a depth of 100 feet. It is a miniature city in itself, with stores, schools, theaters, hotels, markets, Y. M. C. A., fire and police stations, and churches. Many such centers develop at outlying points in large cities, and promise to become of even greater importance in the future.

Shifting of business districts is so closely linked with the constant and normal growth of cities that the determining factors are not readily separable. A successful business in a central business district may expand by acquiring adjoining ground, by going up into the air with additional stories, or by moving away from the center to a larger site. To extend up into the air is unsatisfactory for the average retail business except in the case of large department or specialty stores. This upward growth solves office building growth but retail stores hesitate to construct higher than from five to ten stories. The problem of window display space is most important to most progressive retail shops, and frontage on a traffic street is imperative. Whether the shopkeeper moves to a new district or acquires adjoining land results in the commencement of the outward movement away

FROM CHURCH TO PRINTSHOP AND ROOMING HOUSE

Real estate not only has its romance but also its tragedy. One of the tragedies found in many cities is the commercial and commonplace purposes to which erstwhile places of worship have been put. Garages, factories, warehouses, and retail stores are among the uses for which old churches are often remodeled.

from the center, a steady, almost glacial movement. Cheaper land away from the center tends to promote and foster this outward drift.

The rate of outward movement in the shifting of business districts in the natural course of growth is in proportion to the rapidity of increase in the growth of the city. Slow growing cities see business districts change in periods of from twenty to forty years. Where the rate of growth is rapid, the shifts may occur in periods of from ten to twenty years, or even shorter periods.

Occasionally natural barriers retard axial and outward growth and effect a temporary stoppage. Cross streets marking important intersections with a principal artery of business, gulleys and topographical faults delay normal shifts. If a city is growing rapidly the competition for high grade locations between merchants raises land values to peak prices until some break occurs which gradually turns the direction of growth and thereupon values in older sections slowly decline.

The course of growth in business districts is marked by a gradual rise in value until a place is reached which represents the point of highest retail utilization. Then occurs, after a varying period of stabilization, a slow but steady decline as high grade shops move and are replaced by businesses representing lower standards of utility until land once regarded as the best in the city has become so remote from high grade business as to be greatly reduced in value.

CHAPTER 15.

EFFECT OF CHAIN STORES ON VALUES IN RETAIL BUSINESS DISTRICTS

Earning power of store locations establishes land values—Bidding for choice locations by chain store concerns boosts rentals, which in turn reflect higher ground worth—Theory of chain store merchandising—Real estate chain store brokers act as scouts for new locations—Effect of new out-of-town enterprises on local merchants—Chain stores seek peak locations—Ability of chain stores to pay rent according to gross sales—Heaviest shopping hours are from 11 to 4 o'clock—Experts who analyze locations—"Men's" versus "women's" towns—Per foot front rentals in different cities—Character of space in demand—Chain stores will not pioneer—National and local types of chain stores—Will high rentals paid by chain store concerns continue?

Coincident with the growth of a city comes the expansion of its retail store district.

Competition between merchants for choice one hundred per cent locations naturally causes rapid increases in store rentals. The earning power of certain locations establishes the value of land, a peak being created, which serves as a high watermark for a time for most other rentals in the central section of a city.

These peak land values have a tendency to radiate outward where less desirable properties struggle to obtain as high rentals as possible. Naturally each owner of a business site is eager to establish a rental value for it as high as possible, but this is regulated by his ability to secure tenants who are able to pay the rental demanded.

In a city under 25,000 in population, business often is monopolized by two or three stores which are the recognized marts of retail trade. They drift along year after year engaged in a sort of half-hearted rivalry, but with little incentive to be up and stirring.

When the city begins to grow to a point above 25,000 in population, a new element is sometimes injected into the situation.

Within the past ten to twenty years, the chain store method of doing business has revolutionized retail business in many cities, and has literally driven out of existence many old time merchants who never accepted an innovation in the way of doing business until compelled to. Many unwillingly surrendered and discontinued business.

Chain store merchandising is said to have started first in China some 200 years before Christ, when a Chinese merchant, Lo Koss, is reported to have established a number of stores at different points throughout the Celestial Empire. For many centuries the idea did not become very popular, and it remained for enterprising American business men to stage its revival a few years ago. Perhaps the most outstanding success attained was by The F. W. Woolworth Co., which is now said to have over 1100 five and ten cent stores in cities throughout the United States doing a volume of business of approximately $150,000,000 annually. The United Cigar Stores Co., now a combination of several smaller groups, has been another striking example of chain store merchandising with its nearly 1400 stores and 500 agencies in operation. There are said to be over 300 corporations operating chain stores in this country alone. These embrace all kinds of business, marketing all sorts of women's and men's wearing apparel, shoes, cigars, candy, drugs, and what not.

Among the advantages of chain store methods are said to be standardizing of merchandise; ability to purchase goods in large quantities which permits a wide range of buying power; standardized equipment and management; cash sales and elimination of credits; greater volume of turnover, and consequently lower overhead, these factors combining to make it possible to sell merchandise cheaper.

With the growth of the chain store movement has developed a specialized type of real estate broker, who obtains locations for that class of business exclusively, operating through associated brokers in several hundred cities throughout the country. These scouts spot a high grade location in a city, immediately communicate the fact to the chain store broker, who soon supplies a tenant for the store from a list of concerns he represents.

This competition plays havoc with old time merchants who own single establishments which they are conducting along old time merchandising methods with the result that high grade locations in live, growing cities are now, to a considerable degree, monopolized by the stores of chain syndicates. These concerns can afford often to establish a new branch by offering merchandise which is new and up to date at lower prices than strictly local firms can sell at. This seriously affects the local concerns, of course, but the landlord seeking to sell his location to the highest bidder sees new peaks of value established, and the whole town notes the reflection of higher rentals paid in the increase in land values.

It is impossible to estimate accurately the extent this influence has had in raising land values in many cities, but an analysis of chain store growth in the "gold strip" of many cities shows astonishing conditions created by this bidding of large and wealthy concerns for choice locations.

The outstanding requirement of chain stores is a location in the very best retail section of a city. The actual amount of rent asked often is of small consideration, but the relation between the rent charged and the volume of business which can be transacted is vital. The chain store operator proceeds upon the theory that the amount of rent paid depends upon the volume of business done. If a particular kind of business can afford to pay ten per cent of its gross sales for rent it can readily pay $20,000 a year for a store so located to produce $200,000 worth of business, or $40,000 where $400,000 worth of goods can be sold annually.

The following table, taken from Stanley L. McMichael's book, "Long and Short Term Leaseholds," gives the most complete schedule of maximum percentages of rents to gross sales which can be obtained from chain store operators:

Restaurants	12%	Haberdashers	10%
Millinery	12%	Furs	10%
Barber Shops	12%	Groceries and Provisions	10%
Florists	12%	Hardware	9%
Auto Accessories	10%	Credit Clothing	8%
Drugs	10%	Cigars	8%
Women's Waists	10%	Shoes	8%
Electrical Goods	10%	Hotels	8%
Furniture, Rugs, etc.	10%	Theaters	8%

Women's Suits	8%	Pianos and Phonographs	6%
Jewelry	8%	Men's Clothing	5%
Five & Ten Cent Stores	8%	Teas and Coffee	3%
Trunks, leathergoods	8%	Department Stores	2½%
Candy	7%	Automobiles	2%

Chain stores are of two types, advertising and non-advertising. The big advertisers are concerns dealing in women's ready to wear apparel. The list then descends to the chain cigar store, which advertises but little.

Stores handling goods for women can pay the highest rentals, sometimes from twenty to thirty per cent greater than other lines. Competition compels other kinds of chain stores to pay as much rent as a location will justify.

Retail shopping districts where chain stores are to be found in greatest numbers experience their maximum retail business from eleven o'clock in the morning until three or four o'clock in the afternoon. Traffic counts in the larger cities prove that the heaviest pedestrian traffic is always at the noon hour when shoppers are reenforced by clerks and workers from downtown offices and business establishments flocking out upon a street for their noon airing. It is amazing the amount of shopping that can be done by a young woman clerk or bookkeeper during her lunch hour.

Large chain store concerns maintain a practice, which is constantly increasing, of retaining experts to study their businesses and methods for improving trade. Many employ men to do nothing but analyze new locations, spending days ''clocking'' main sections in a city, separating the women from the men in the traffic counts which are made. An investigator will estimate that if a certain number of women pass a location every day, a definite proportion will enter and buy. Thus will be established a preliminary study of the volume of sales on which, according to the foregoing table of maximum rents to gross sales, a possible rental that can be paid is estimated. If the scout can figure out a satisfactory volume of business can be done, it may be only a short time before such a location is leased.

The character of the shopping population usually determines whether a city is a ''men's,'' or a ''women's'' town. Certain cities like Akron, Bridgeport, Gary and Pittsburgh are known as ''men's'' towns, because the industries there chiefly employ men. In Troy, Paterson, and Fall River, the great industries employ women. This has an effect on the character of the shops which fill the retail business center, as they cater to the class of shoppers predominating.

Chain cigar stores are able to use small areas. They will rent a little ''bite'' out of a big corner store, suspend fixtures from ceilings, and do a thriving business in a space as small as 100 square feet. The large users of space are the women's stores, and the five and ten cent stores. The standard requirement of the latter is a fifty foot front, 150 feet deep, fifteen foot ceilings, and a usable basement. Sometimes the five and ten cent stores will use a second floor advantageously. Find the location of the best known five and ten cent stores in the heart of almost any city, and you will at once find yourself approximately near the center of the best retail trade district of the town.

Chain stores do not care to pioneer—they will not locate in new untried retail areas. They seldom, if ever, open in outlying business districts, although under exceptional circumstances they will go there in a small way. They want high grade locations where business can be done in large volume, and they stand ready to pay the rents, if at all within reason. They simply will not go out to the edge of a business district and wait for business to grow their way. They prefer getting near the big department stores, and will pay big rentals or bonuses for leases to acquire such business locations.

Chain stores are slow to leave proven locations, though it does not follow that they will not move out into newly created business districts. What they do, however, is to secure control of a choice site in a new district which is ''coming'' in four or five years. They will remain at an old location for that time, rent the new location to a tenant willing to pioneer in the district until it ripens sufficiently for the volume of trade desired, and then move into the new section as it, too, assumes big business possibilities. Because of this fact, it is found often that chain stores will negotiate rentals on which possession is given years after the signing of the leases. These leases, which are based often upon speculative values are readily recognized as barometers of the future possibilities of a section, and help establish new land values in the locations where they are taken.

Only a few of the chain store concerns attempt nation wide distribution. They usually select a few cities or states in which to operate and leave other territories for competitors. This is due in part to the location of their base of supplies for most of the chain stores are selling agencies for groups of big manufacturing enterprises, and in these days of high freight rates there is a limit to which shipments of goods profitably can be made.

Often chain stores are of a purely local character. These are notably drug, candy and grocery stores, which center in one large city, and do not seem to care to expand beyond its limits. Five and ten cent stores, wearing apparel concerns, and cigar stores are among those found engaged in national distribution of their products.

As a city approaches and passes the 100,000 population mark, it begins to attract the keen attention of the chain store brokers, most of whom make their headquarters in the two or three largest eastern seaboard cities, in close proximity to the headquarters of the larger chain store concerns. These brokers will step off a train in a growing city for a day to look things over. If the place looks good to them, they will interview a live broker, and get a line on possible sites to be secured. Then will follow the location of a branch or two of some large chain store company. If the branch does well, the broker will notify leaders in other lines, and soon there will be a general demand for locations from out of town concerns, until the buying capacity of the town is reached. Even after that time another broker may enter the field and start new competitive bidding for stores. This naturally has a most important bearing on the rentals secured by owners, and consequent rises in land values year by year.

Store space on streets in certain of the large cities has become so much in demand, and such high rentals are being paid that every inch seems worth a fortune. Heavy stone or brick pillars and steel beams will be shaved down at great expense to give a few more inches of valuable display space for which some storekeeper will pay rent. Entrances to upper floors will be relocated or abandoned to secure five or six feet more of store front on a business street and the second floor of a building rented at a low figure or abandoned so the ground area can be made to earn every possible dollar. Perhaps no more intensive use of space is to be found than in districts like these where rentals seemingly at a maximum one year increase with the new leases to be closed the next year.

Storekeepers and realty operators often wonder, and owners secretly cogitate over the problem, whether these seemingly high store rentals will be lowered at some future date. Those who seem to know the situation best, however, believe that the high rentals charged on main thoroughfares in many of the larger cities will be maintained, unless there should be a distinct shifting of a shopping district. New ways of merchandising will be discovered to lower manufacturing and distribution costs, but the big expense that will always be afforded because of keen competition will be the luxury of high rents, and the consequent maintenance of high land values at these favored peak locations.

WHERE NIGHT IS TURNED INTO DAY

City streets, lined with hundreds of high-powered electric lamps, are as attractive at night as by day. "White ways" are to be found in every progressive town and city, where "window shoppers" may revel to their hearts' content. This street in Toledo is typical of the lavish manner in which electricity is assisting in modern retail business life.

CHAPTER 16.

ARTIFICIAL AND NATURAL FACTORS AFFECTING CITY GROWTH

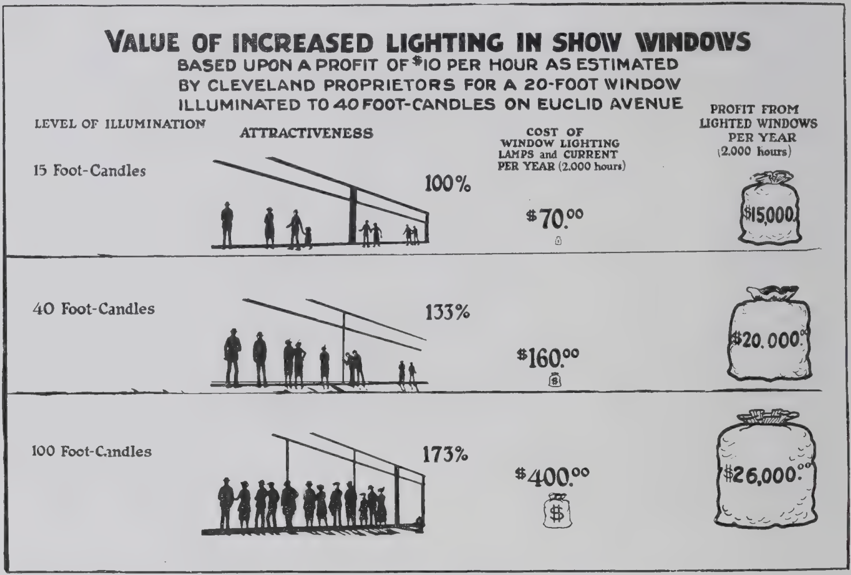
Electricity and its uses—Conditions favorable and adverse to expansion of business and creation of values—Unnecessarily wide streets—Thoroughfares intersecting and forming points or flatirons sometimes show depressing effects—One sided avenues seldom attract big volume business—Unfavorable effect of hilly streets in cities—Lakes and rivers as barriers to business—Cemeteries are shunned—Elevated transit lines affect locations unfavorably—Where streets end at terminals or docks, business development is usually in the opposite direction.

Man's discovery of the secret of shackling the sunshine, and distributing widespread at small expense the mysterious force known as electricity has worked wonders in the modernizing of cities and particularly in making more attractive their centers of retail trade.

While the improvement of internal combustion engines has revolutionized transportation, and had its attendant effects on city growth and land values, electricity has modernized retail business establishments. Electric illumination, in addition to furnishing a twenty-four hour workday, has been a boon to business of all kinds. Particularly has it been utilized in retail business until one of the most important features of a retail store today is its electrical equipment.

Many shops of a generation or two ago were dingy, dark places, compared to those of today. They were necessarily small because of the lack of illumination other than by means of oil lamps and flickering gas jets. Now great areas of inside space, often far removed from the street frontages of a property are utilized to their highest degree by reason of devices which broadcast manufactured daylight. A department store today may be acres in extent, and yet be as bright and cheerful as if served by myriads of windows through which the sun pours its rays. This has added immense value to land because of the possibilities of its more extended utilization.

A few years ago found it necessary for a clerk to carry a bolt of cloth, or articles of wearing apparel to a front door of a store so a customer might determine the shade and texture of the fabric. Today there are specially constructed lights which shed "daylight" rays.

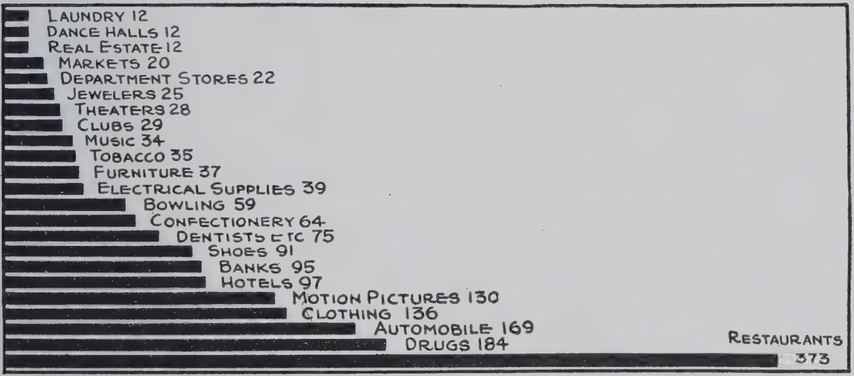


PROFITS IN WINDOW ILLUMINATION

Show windows on retail streets are a valuable asset to the merchant. Proper lighting adds to their value in proportion to their increased attractability. The chart shows test results in which attracting power was increased 33 per cent by slightly more than doubling the original amount of light, and stepped to 73 per cent increase when the light was multiplied 6 2/3 times. Comparison of the data shows that for an added cost of only $330 per year for lighting, profits for the windows were increased by $11,000.

Land now used as a site for a great store often is valued on a square foot basis rather than having its worth estimated in street frontage units. This is due largely to increased utility of inside and offstreet or back areas on account of electric illumination. The land several hundred feet back from the street line often is just as valuable for display purposes as that a step within the front door of an establishment. Thus again has modern ingenuity added to the value of business locations.

Before the advent of electricity, the woman shopper on a winter afternoon hurried home early because there was little to see after the sun began to decline. Now shopping may be continued late into the evening if one so desires. The range of time available for shopping purposes has been doubled, and the element of convenience greatly enhanced. This means that a merchant can do more business during a season, and consequently add to his profits. It reflects his ability to pay higher rent, thus enhancing land values.



ELECTRIC SIGNS DIAGRAMMED ACCORDING TO USE

This indicates the different classes of business using electric street signs, according to a survey of 1919 electric signs in Cleveland made in April, 1923. Restaurants appear to be the most prolific users of electric advertising signs.

On dark gloomy days, a great retail establishment, or even a small shop, is a cheerful place to spend one's time, thus balancing the volume of trade which in the old days was almost suspended in many stores when climatic conditions were unfavorable.

On late afternoons, and during evenings, the electrical illuminations to be found in business districts prove especially attractive. Animated signs flutter their messages on every side. White way lighting systems make the thoroughfares almost as bright as high noon. Effect of artistic window trims are heightened, and merchandise is displayed in such an alluring manner that sales are increased.

The value of electricity in the conduct of retail business is perhaps not fully appreciated. Decorative effects made possible through use are widening year by year. Capitalized, it is worth many millions of dollars annually to any city.

Ventilating systems, operated by electricity make shopping a pleasure. Passengers are whirled from floor to floor in silent elevators. Fountains with miniature water systems, operating under vari-colored lights, charm the eye.

As business districts extend, they are furnished with white way lighting systems, attracting pedestrians, and inviting them to travel out into the newer, pioneering districts.

While the use of electricity in all of its wonderful forms has been distinctly favorable in character, there are many influences which have a more or less detrimental effect upon city growth, particularly in business districts.

Wide streets are difficult for pedestrians to cross from side to side and, although a blessing in handling increasing automobile traffic, operate as a distinct disadvantage to high real estate values. Pedestrians show aversion to crossing unnecessarily wide thoroughfares, so that at least a portion of the stores which might be visited during a shopping trip are avoided. Thoroughfares like Canal St. in New Orleans, Market St. in San Francisco, Superior Ave. in Cleveland, and Woodward Ave. in Detroit, all show this influence in a marked degree. Generally speaking, a retail business street should not be more than one hundred feet in width, though with modern traffic conditions a street of that width is nearly ideal.

Locations where two wide streets intersect at a point, thus causing a long street crossing on a bias, are shunned particularly by women who will not venture across these deathtrap intersections. In some large cities, such crossings are now protected by rows of traffic standards, so that vehicles may only pass through small gaps at moderate speed. Retail sections for a distance of from 100 to 300 feet beyond such intersections experience a decided falling off in pedestrian traffic because of this adverse condition.

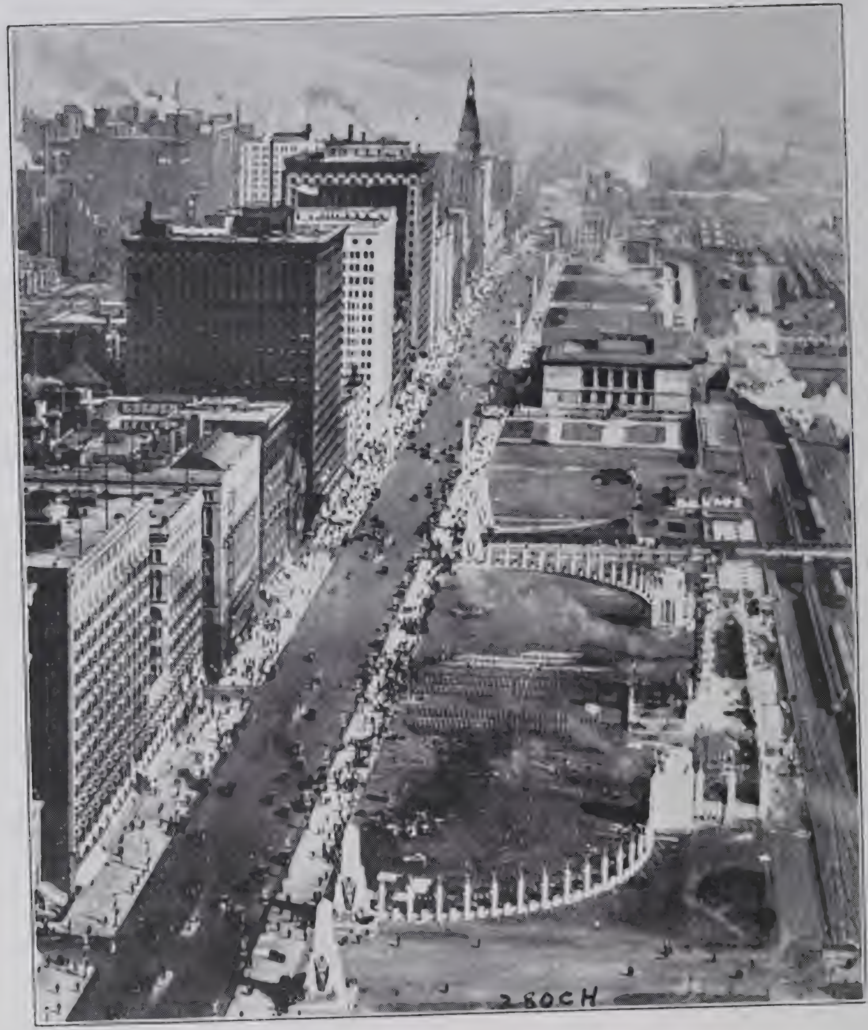
One sided streets, so called, are avoided by the experienced merchant as a place in which to locate a store. Where public buildings, and parks monopolize one side of a street, it means that stores can exist only on the side opposite them, and then only to a limited extent. Shoppers prefer trading in stores on well balanced thoroughfares where important establishments are located on both sides.

Likewise the breaking of a main business street by reason of its passing through a park, as does Woodward Ave. in Detroit at Grand Circus Park, has a definite effect in checking buying traffic. It was many years before stores broke over the barrier in Detroit, and even today with a fine shopping district and high land values in existence on lower Woodward Ave., there are very few pretentious stores north of Grand Circus park. The parkway is a delightful breathing spot, and there are clustered about its borders magnificent hotels, theaters, office buildings and public institutions, yet it is a barrier which will always retard the northward trend of Detroit's retail business.

Michigan Ave., in the down town section of Chicago, is a one sided street, with a parkway opposite it, and it is significant that there are no large retail stores there, the section being given over to exclusive shops, while State Street attracts the heavy throngs of buying traffic, where the largest stores are located.

Likewise in Cleveland, where the Public Square exists, it took years for business to jump this barrier and start out Euclid Ave. The north side of Superior Avenue in Cleveland, from the Public Square to East 9th St., is given over to monumental buildings, with the result that there are no big retail establishments on the south side of the street. This is further aggravated by the fact that Superior Avenue is 120 feet in width—too wide for a good retail business thoroughfare.

Pennsylvania Avenue in Washington is too wide to attract big business establishments which have located elsewhere. Perhaps the one exception is Canal Street in New Orleans, where large stores do exist, but the reason for that is that Canal Street always has been the main business thoroughfare of the southern metropolis. San Francisco's Market Street has one or two big retail establishments on it, but it is significant that the highest



Copyrighted, Underwood & Underwood

AMERICA'S GREATEST "ONE SIDED" STREET

Michigan Avenue, Chicago, where it fronts on Grant Park, is lined with monumental office buildings and hotels, but retail business is restricted to high grade shops, the larger stores going elsewhere, because a one-sided street does not attract throngs of shoppers.

grade stores are in another location where narrower streets prevail.

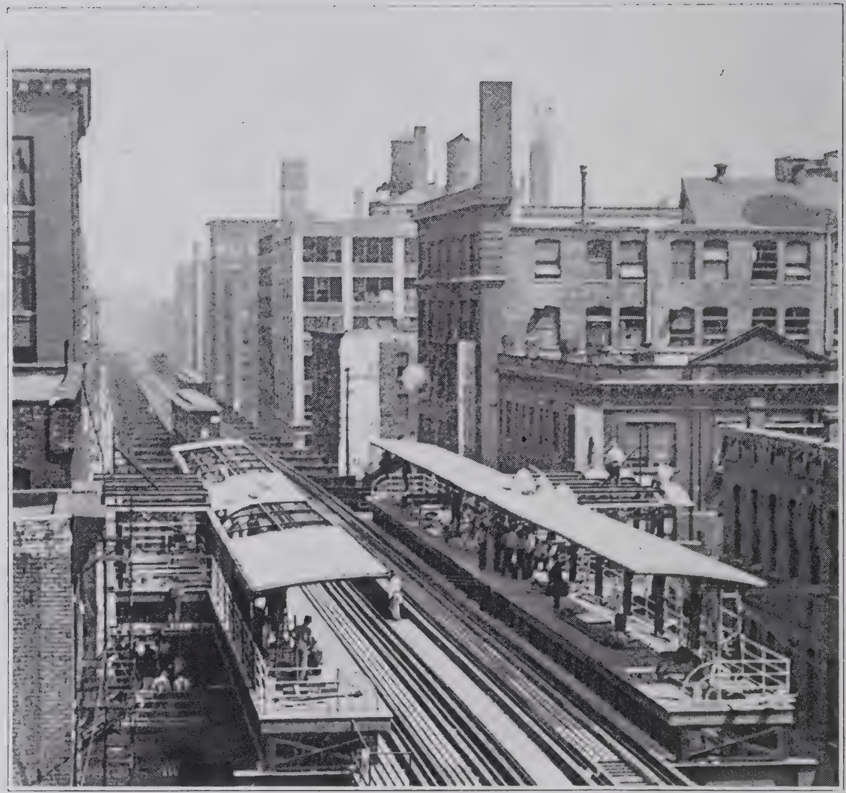
Steep inclines in streets will immediately check a flow of foot travel, and make it impossible for business to exist. In Seattle, San Francisco, Los Angeles, and Duluth, this is particularly noticeable, for there is much hilly land close to the down town business districts. Shoppers will avoid exerting themselves by even climbing a short hill, but will take the easiest line of travel, even to abruptly turning corners to do so. Even such necessary establishments as restaurants find themselves shunned when their patrons are compelled to climb a short incline to reach their doors.

Streets bordering lakes and rivers seldom develop into great retail centers, for there seems to be a feeling on the part of people that they prefer to trade in built up sections rather than view pretty lakes, rivers or parkways.

Cemeteries are a deadly barrier to retail business, and shoppers dislike their proximity. Even in a city as densely populated as New York, the only neighbors of the two historic small cemeteries on lower Broadway are office buildings. Churches, schools, banks, public libraries, theaters, and similar institutions are also considered poor company for high grade retail business of any kind.

Street car lines emerging from tunnels in the center of highways have a distinctly deterring influence on business. The wide gaping entrances are far from attractive, are noisy and are often dangerous to traffic. Only small shops can exist in such a neighborhood.

Elevated railways have a depressing effect on big business. Cars roaring along great trestles of steel are not conducive to comfortable shopping. Witness Wabash Ave., and other thoroughfares in Chicago which attract only mediocre business. The same is true in New York and Boston on avenues where elevated lines exist. It is doubtful if elevated systems will ever gain great favor in large cities—despite the pressing need for rapid transit. Such lines have a decidedly unfavorable effect on high grade business, and no property owner wants one on a street where he has reason to believe high land values will develop because of the thoroughfare's ability to attract good stores. Elevated lines are ugly, noisy, and a necessary evil at best.

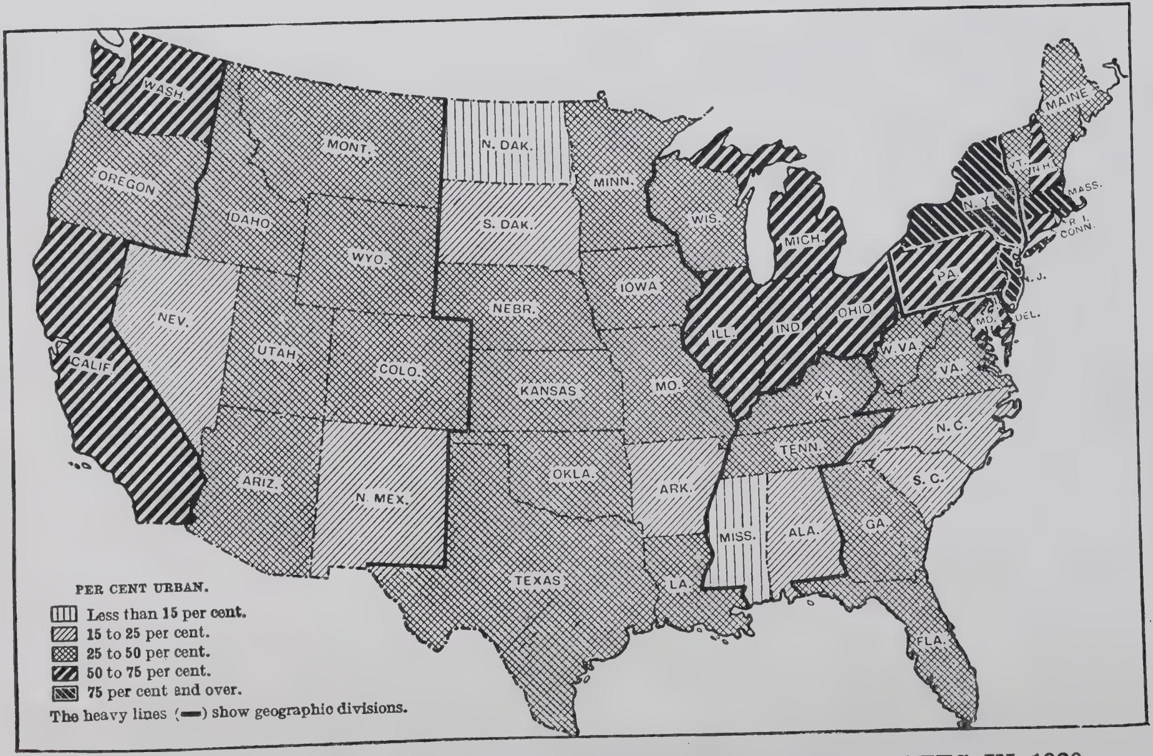


Copyrighted, Underwood & Underwood

WILL CITIES COME TO THIS?

In many cities construction of elevated railroads is urged as a solution for transportation problems. Here may be seen the Grand Avenue elevated station in Chicago, showing how the street level has been "roofed" by a great heavy steel trestle work. High speed trains roar along this artificial artery, affording rapid transit for some at the sacrifice of property values along its route.

Streets which have their growth suddenly checked by railroad terminals, boat landings, or lakes, seldom see business inclined to develop in that direction. In San Francisco, with its great ferry landing, there is a distinct tendency to grow away from it, and for a number of blocks near the ferry landing only small shops are to be found. Denver has its Seventeenth Street, which ends abruptly at a railroad station, but only small establishments exist in its proximity, the direction of growth being in an opposite direction. Broadway in New York ends at the Battery, but what merchant would think of going anywhere on lower Broadway to open a large store? Woodward Avenue in Detroit ends at the river, with not a sizable shop in sight. Yonge Street in Toronto, Canada, is in the same plight, all of its development being in the opposite direction. The reason is that growth originally started near these terminals, and the inclination for expansion always seems to be away from the point of original settlement, and out towards the new high grade residential districts, again emphasizing the prevailing trend of city growth.


WASH.
OREGON
CALIF.
NEV.
IDAHO
MONT.
WYO.
UTAH
COLO.
ARIZ.
N. MEX.
N. DAK.
S. DAK.
NEBR.
KANSAS
OKLA.
TEXAS
MINN.
IOWA
MO.
ARK.
LA.
WIS.
ILL.
MICH.
IND.
OHIO
KY.
TENN.
MISS.
ALA.
GA.
FLA.
S. C.
N. C.
VA.
W. VA.
MD.
DEL.
PA.
N. J.
N. Y.
VT.
N. H.
MAINE
MASS.
R. I.
CONN.
PER CENT URBAN.
Less than 15 per cent.
15 to 25 per cent.
25 to 50 per cent.
50 to 75 per cent.
75 per cent and over.
The heavy lines (—) show geographic divisions.

PERCENTAGE OF URBAN POPULATION IN THE UNITED STATES IN 1920

The above diagram, issued by the United States Census Bureau, indicates the percentage of persons living in other than rural districts, as indicated by the census of 1920.

CHAPTER 17.

FOREIGN AND RACIAL SETTLEMENTS

Colonization of foreign born residents in sections or "Villages" a natural and appropriate tendency—They maintain their own institutions and create their own land values—"Little Italy" to be found as a part of many American cities—Chinatown in San Francisco an important unit in that city's economic life—Most troublesome problem concerns colored people, solved only by segregation—Tenderloin districts, destroyers of property values, have passed from Amercan cities—The Jap problem on the Pacific coast—Restriction of immigration may curtail rapid growth of some American cities.

While settlements of foreign born residents or colored people sometimes have the effect of making cities grow rapidly it is significant that in some instances, notably where negroes congregate, land values are depressed.

Nearly every city that has passed the 100,000 population mark notes that certain classes of people form little districts or ''villages'' in which they live in a more or less congested manner, with their own people closely congregated about them. ''Little Italy'' is to be found in a score of American cities. ''Little Hungary,'' ''The Ghetto'' and ''Little Poland'' are almost as common.

New York City's population in 1920 of 390,832 Italians exceeds that of Genoa, Italy, which in 1921 had a population of 300,784.

The following figures from the U. S. census bureau for some of the foreign born populations in the nine largest cities in 1920 are interesting:

	Germans	Italians	Poles	Austrians
New York	194,154	390,832	145,679	126,739
Chicago	117,288	59,215	137,611	30,491
Philadelphia	39,766	63,723	31,112	13,387
Detroit	30,238	16,205	56,624	10,674
Cleveland	26,476	18,288	35,024	29,724
St. Louis	30,089	9,067	5,224	5,587
Boston	5,915	38,179	7,650	1,530
Baltimore	17,461	7,911	11,109	2,985
Pittsburgh	16,028	15,371	15,537	10,072

In the city of New York, where the ready made clothing industry is conducted on the largest scale in the world, there are 479,797 Russians, many of whom are engaged in the so-called needle trades.

There is a distinct tendency on the part of people who live in foreign sections to buy from their own neighborhood stores, patronizing their friends and relatives whenever they can do so. Whole families residing in the old world are sent for and brought to America, being quickly absorbed into the life of the settlement which is a part of the larger city. As these sections increase in number so do the streams of immigrants who are attracted to their own people after landing in America. Many of the larger cities of this country are made up largely of foreign born residents or those whose parents came to this country from foreign lands.

These foreign sections sometimes develop and maintain business sections of size and importance. In Cleveland there are said to be nearly 10,000 Italians living in one square mile in a secluded section off Euclid Avenue on Mayfield Rd., which is as distinctly Italian in almost every respect as a town in Italy itself. Only Italians live there and only Italian stores, churches, picture theaters and homes are to be found there. The two real American institutions are the huge public school, patronized almost exclusively by Italian children and a settlement house and library combined, presided over by American directors. The settlement is orderly, well kept and quite as presentable as an American city of the same size and possesses a strong spirit of American loyalty yet it is intensely Italian in composition and feeling.

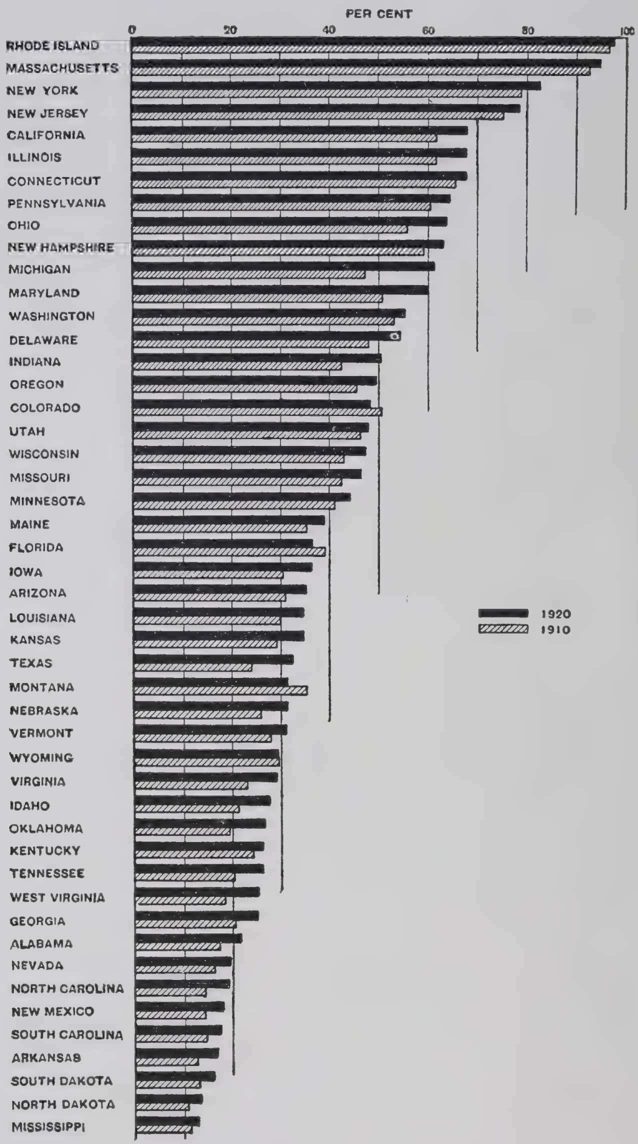
In Detroit, where the Polish population is large, the same conditions may be found among the Poles, who have their own leaders and institutions, both religious and secular. They patronize their own business districts and places of entertainment and are an economic asset to the community for the newcomers to these foreign settlements soon obtain work of a character that the average American workman will not perform.

Only a few cities in America have real Chinatowns. The one in San Francisco is the largest though the one in New York also is of considerable size. A most interesting one exists in Vancouver, B. C. Several other cities also have their Chinatowns where the sons and daughters of the Flowery Kingdom segregate themselves more completely than do any other nationality.

San Francisco's Chinatown is really an important section of the city, not so much because of its picturesqueness attracting tourists, but because of the large volume of importing business done through the various Chinese merchants, who supply about 62,000 Chinese living in the United States with Chinese merchandise. The district, with a population of 7744 in 1920, possessed its own telephone substation, its own newspapers, library, public schools, hotels for both Chinese and American guests and all of the requirements of a city complete in itself. Land values along Grant street, its main artery are extraordinarily high in some sections and the thoroughfare is most interesting to traverse. It is as interesting an economic unit of the city as was Nob Hill before the fire and earthquake. It both attracts population and helps maintain land values. Curiously enough the Chinese population of the United States decreased from 71,531 in 1910 to 61,639 in 1920.

Welfare workers of large cities often disapprove of the practice of foreign born residents congregating in settlements and living in seclusion. On the other hand, however, if this population should spread broadcast throughout a city it might have a decidedly depressing influence over a wide area of residential territory. While considered from a social standpoint it may be right for American cities to rapidly assimilate their foreign born population, nevertheless, it seems the best economic policy to have at least the first generation of immigrants from certain foreign lands live in settlements by themselves until they absorb American ideals and are at least able to think and speak the English language, and become familiar with its public institutions and ideals.

A most troublesome problem in assimilation which has confronted American cities for many years and which promises to continue to be an unsolved problem is what to do with the colored folks. Since 1915 there has been a steady migration of these people from southern to northern cities. In the latter communities the colored population has doubled and trebled in many instances. High wages offered by labor agents to the colored people of the south easily persuade the latter to move northward. Many in-



URBAN POPULATION IN THE UNITED STATES

This diagram, issued by the United States Census Bureau, indicates the per cent urban of the total population by states for 1920, as compared to 1910. It will be noted that nearly every state in the Union increased its urban population within the time indicated.

stances are cited where a colored man a few months after arriving in a northern city receives in wages as much per day as he was earning in a whole week's work in some southern town or on a plantation.

There is a natural inclination of the colored people to live together in their own communities. With the increase in colored people coming to many northern cities they have overrun their old districts and swept into adjoining ones or passed to other sections and formed new ones. This naturally has had a decidedly detrimental effect on land values for few white people, however inclined to be sympathetic with the problem of the colored race, care to live near them. Property values have been sadly depreciated by having a single colored family settle down on a street occupied exclusively by white residents.

The total negro population of the United States according to the federal census of 1920 was 10,463,131 or about one tenth of the population of the country. Of the total 3,559,473 lived in urban centers and 6,903,658 in rural sections. For the next several years, however, there was a great migration of the negro from the southern to northern sections of the country where high wages were being paid for common labor. The federal census in 1920 indicated that there were in New York City 152,467 negroes, in Chicago 109,458, in Philadelphia 84,459, in Detroit 40,451 and in Cleveland 34,457. During the succeeding three years it is estimated that negro populations in all of the larger cities of the north increased at least twenty-five per cent.

Segregation of negro population seems to be the reasonable solution of the problem, no matter how unpleasant or objectionable the thought may be to colored residents. Southern cities have a habit of taking care of the problem which is well known and seems to be entirely effective. Northern cities, more sympathetic towards the negro have been so backward at times in coping with the problem that serious race wars have resulted and lives of both whites and blacks have been snuffed out in ensuing disturbances.

Frankly, rigid segregation seems to be the only manner in which the difficulty can be effectively controlled. The colored people certainly have a right to life, liberty and the pursuit of happiness but they must recognize the economic disturbance which their presence in a white neighborhood causes and forego their desire to split off from the established district where the rest of their race lives.

Attempts to pass laws segregating the colored people to a given district have not been successful from a legal standpoint, on account of the fourteenth amendment to the constitution of the United States. In 1916 the voters of St. Louis passed such a law by a vote of five to one. The plan was to restrict further extension of the negro district which was growing rapidly. There was in 1920 a negro population in the city of about 70,000. The law provided against further expansion of negro occupancy in such blocks as contained less than fifty per cent negroes. If in excess of fifty per cent the block was to be recognized as negro and restricted against white occupancy.

Following the passage of the St. Louis ordinance suit was instituted by negroes attacking the constitutionality of the ordinance. The State of Kentucky had previously passed a law of similar import and about the time St. Louis was preparing to make its ordinance effective the Supreme Court of the United States declared the Kentucky law unconstitutional and upon this decision being rendered the St. Louis authorities took no further steps to enforce their law.

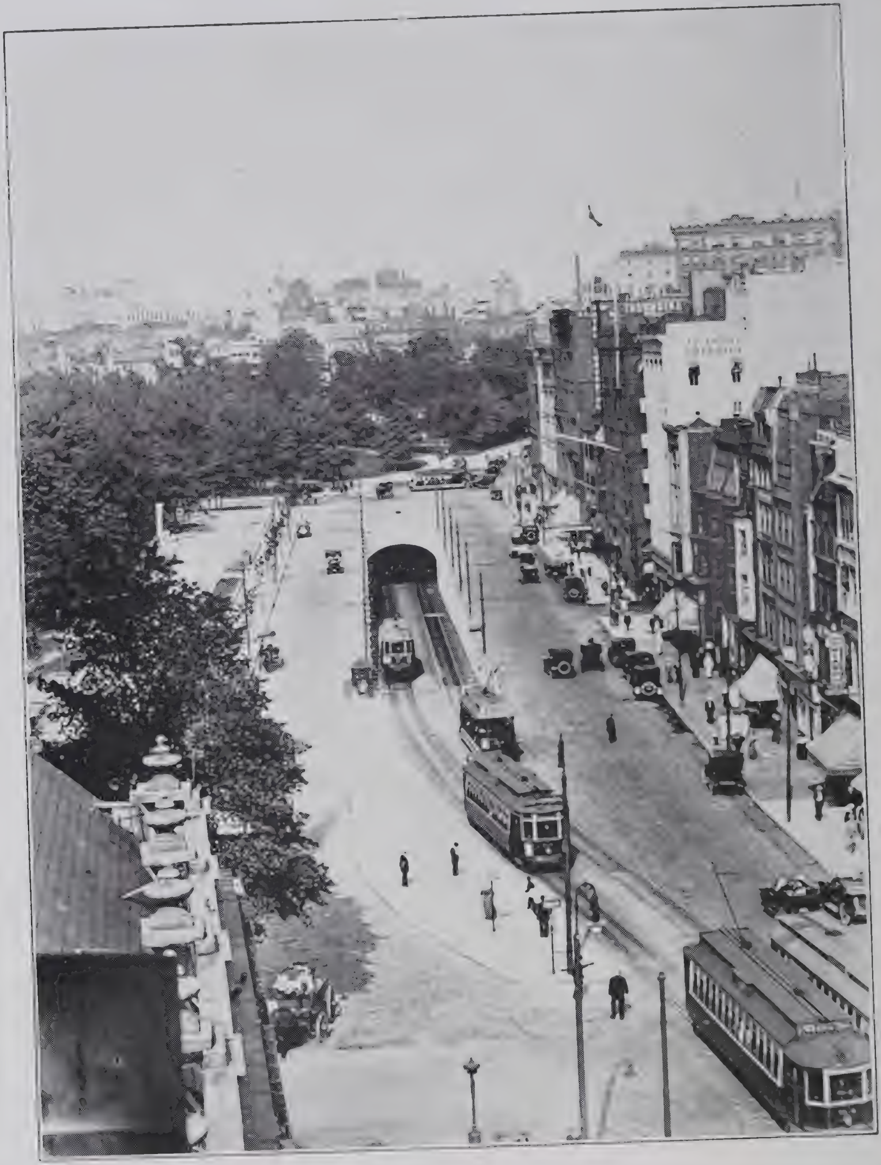
In 1923, however, some thirty neighborhood improvement associations were formed in St. Louis whose members pledged themselves not to sell or rent to negroes within certain restricted blocks. The agreement among white owners, it is claimed, is entirely legal and promises a solution of the problem.

Land values change slowly in colored settlements. Investors are loath to enter such districts to buy property and when they own property there they charge all the rent possible because of the depressing influences at work and because rented property in such neighborhoods is taken care of very poorly. Colored people in cities are seldom land owners. Sections preempted by colored people are usually ones which have been worn out by another class of residents, who have either been driven out by the influx or have moved out because the accommodations were of too poor a character to meet ordinary requirements. In some instances, fine residential sections of a generation ago have been given over to colored populations, notably in New York, Cincinnati and Chicago. In the smaller cities, however, the accommodations are often of the most meager and unsanitary character imaginable. Special efforts will probably be made in time to furnish colored people living in cities with adequate housing facilities.

Tenderloin districts have disappeared from most American cities because of enlightened public sentiment which does not countenance legalized vice. Such districts have a decidedly depressing influence on neighboring sections, though rentals received from the resorts themselves are abnormally high, because of the questionable character of occupancy. Probably the most infamous section of this kind in America was known as the "Basin District" in New Orleans where some sixteen square blocks were given over to low brothels, saloons and kindred enterprises. During the Great War the government abolished the district. It became literally a deserted village, with land and building values almost wiped out of existence. Barbary Coast in San Francisco met the same fate. In course of time such districts usually revert to warehouse or industrial uses and memory dims the sins of the past. Happily they now have no place in the life of a modern American city. While the morals of city dwellers may not have improved it is now recognized that countenancing an entire neighborhood being given over to legalized vice is no longer wise. It serves no good purpose in the growth of a city or the maintenance of its land values.

The Japanese problem of the Pacific coast is one that ties itself in with growth of towns and cities. Had not the Japs been excluded there is no doubt but that whole towns of them would have grown up and flourished in California, to the decided detriment of other communities. The standard of living of Japanese coolies is so far below that of the lowest type of American born workingman that it has been thought wise and just to exclude such immigrants from this country. Competition of the sort experienced while the Japs were given some latitude soon convinced the people of the western seaboard states that neither Japanese, Chinese or East Indian coolie labor was desirable and it is practically all excluded from entering this country and control of a stern character is exercised over those already living here.

Closely related to the entire subject of foreign born residents in cities is that of immigration. Restrictive immigration policies tend to maintain at a lower level the growth in population of the entire country and consequently of American cities, for it is significant that most of the immigrants coming to the United States naturally gravitate to the cities where wages for common labor are highest. The wise policy of choosing the character of immigrants which this country desires to welcome and assimilate seems a fixed one. Restriction of new arrivals, however, is certain to reflect itself in the population totals of some cities when the next federal census is recorded. The rapidity of growth of a city is not important but that its growth shall be of a desirable character is of the utmost importance.



AN ATTRACTIVE SUBWAY ENTRANCE

When Boston was building its subways it was found necessary to pass from the ground to the lower subway level at a point on Boylston Street opposite the Public Gardens. To do so the street was substantially widened and an entrance created which does not obstruct traffic, nor look unsightly. Boston was the first city in America to build a subway.

CHAPTER 18

RAPID TRANSIT AND ITS EFFECT ON LAND VALUES

> Rapid transit influences the structure and growth of cities—Reduces value of competitive land—Subdividers quick to profit by new service—Transit equalizes districts—Only a few cities have had practical experience in rapid transit—How New York's land values soared with the building of its first subway—Some lines in Brooklyn created slight increase in land values—Dislocates established centers and shifts business—How stations attract shops—Bus lines in cities cause small increase in rentals or values—Rapid transit a problem which most cities are studying—Transportation adds to value of land.

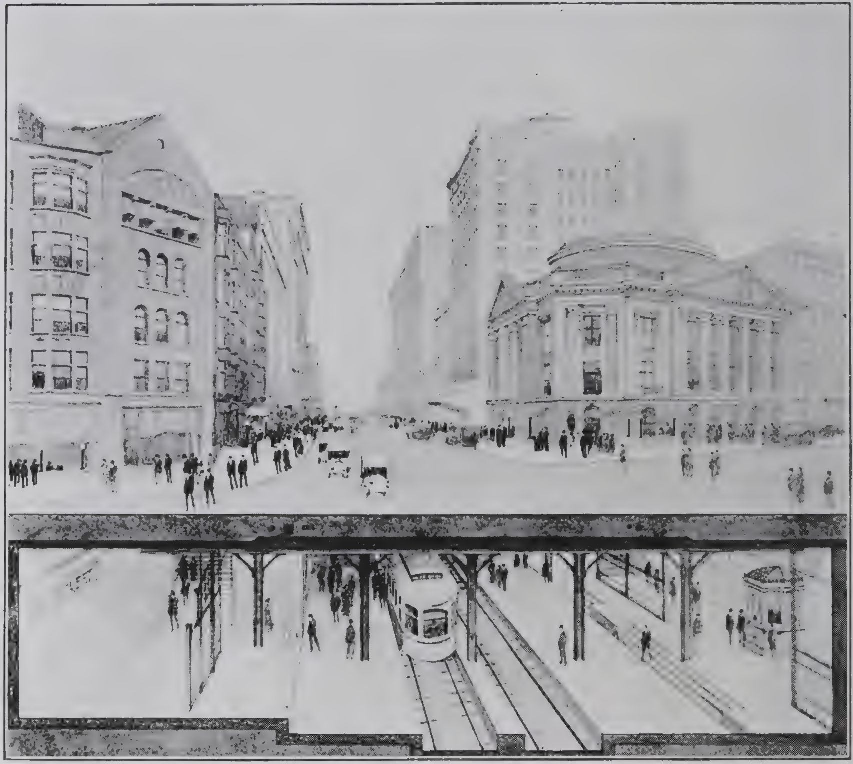
Transportation translates distance from miles into minutes.

In the days when street cars were drawn by horses, it took thirty minutes or longer to travel a distance of three or four miles. Since electricity first came into use as motive power for street cars, displacing the horse drawn cars, each decade has witnessed further advances in the development of rapid transit facilities, until today one may board a car fifteen miles from the central business district, and yet spend no more time to cover the distance than was formerly required to travel four miles in horse cars.

Rapid transit has materially influenced the structure of cities. Population has been scattered over wide areas, making possible the large cities of today by rendering accessible all sections of a city for residential and business use, and enabling those persons who are located in suburban areas to carry on their respective occupations in distant parts of the city.

Adequate local transportation systems within a city and its suburbs usually lowers the average value of land in city boundaries by rendering new districts accessible, and increasing the quantity of land thus available for residential and industrial purposes. New York has experienced this decrease in values in connection with the construction of its subways.

Subdivision operators have been quick to seize the opportunities afforded by speedy and cheap transportation, and have laid out residential sections at great distances from the center of cities. Some subdivisions adjoining large cities are from ten to twenty miles from the point of origin of the city. Suburbs have



ARE CITIES COMING TO "TWO DECK STREETS?"

Traffic problems in the downtown streets of large cities are becoming so difficult to solve that traction engineers are urging the construction of subways under main thoroughfares. This plan proposes a street excavated for a number of feet in depth, a roadway built over the cut, with street car service below, leaving the upper roadway at the original street level for the use of vehicular and pedestrian traffic.

been created having independent civic and business existence, but being entirely dependent upon the nearby city to furnish employment to residents.

All such suburban communities connected with a city by means of railways furnishing cheap transportation add tremendously to the traffic problems of a city. Thousands are found daily upon the streets and avenues of the city, finding employment in the huge office buildings and mercantile establishments, or carrying on trade in the retail stores, who live in suburban communities.

Everything else being equal, thirty minutes from home to work is just so long, whether spent in walking a few blocks or riding a few miles in a street car, elevated line, or subway. To provide a district with accessibility by rapid transit is to equalize it with other districts offering like advantages to potential residents.

One noticeable effect of transportation systems, as their lines spread out over a city, is to dislocate established business and residential centers, and create new ones. Small towns and cities, parasites upon the parent city, grow up bordering it, and furnish residences for many who earn their livelihood in the business life of the city.

Only a few of the larger cities of the country have had actual experience in real rapid transit. New York stands first in fast transportation, although Chicago with its elevated lines has benefited by that form of rapid transit for many years. Philadelphia and Boston also have less extensive rapid transit systems. Boston was the pioneer in subway building. Pittsburgh has excellent commuter service on several of its steam railroad lines. Cleveland has a single transit system to its high grade heights residential district. This, later, will be expanded to include service over a number of railroad lines radiating in different directions, with a central station in the heart of the city's business district. Many cities, however, are seriously studying the problem of speedier transportation to suburban districts, and tentative plans are being made for expansion in this direction.

New York's first experience in rapid transit was by means of elevated lines. Built over streets for the most part these lines are bulky, ugly, and noisy, and interfere with free use of the street. They originally detracted from the value of property abutting the thoroughfares so occupied, and few cities have installed elevated roads.

Early in the present century engineers began studying the possibility of building subways in New York to afford underground rapid transit. The first New York subway was completed October 27, 1904. Later a number of new subways were constructed by the city and have afforded quick transportation for a large number of persons who found it necessary to move from place to place.

HOW SUBWAYS BREATHE

Like an automobile engine, a subway must have a breather. This attractive little building, in addition to being an emergency exit on the Charlesgate line in Boston, also contains machinery used in ventilating the tube. It is in a parkway in one of the fashionable sections of the city, and has not been found in the least objectionable from its outward appearance.

In New York City the first rapid transit lines were built at a time when the island was heavily populated. The city grew fastest along these new lines. Yet in Brooklyn the territory along the new lines, although nearer to the business center of Manhattan, developed slowly. This may have been caused somewhat by the reluctance of many persons to pass over long bridges, or cross under large rivers, preferring to avoid such fancied hazards, and travel greater distance under or over solid ground. In recent years, when the building of new transit lines in New York has been a municipal project designed to further city development rather than for profits, such great areas have been tapped that comparatively slow radial growth has been noted, business districts continuing to grow as rapidly as ever.

About 1910, a committee of the City Club of New York, while studying the problem of the increase in land values due to the creation of rapid transit systems, with a view to determining whether land which was benefited by such increase should be required to bear assessments for the building of rapid transit systems, expressed the opinion that very heavy increases in values had occurred as the result of the building of the earlier rapid transit systems. It was estimated that within seven years after the building of the first subway, land values in those portions of Manhattan and the Bronx most directly affected had increased in value $80,500,000 above the normal increase which would naturally have come for that period. The cost of that part of the subway passing through these districts was about $13,000,000, while the cost of the entire system from the Battery was $43,000,000. This represented a net increase in land values as the result of the construction of the subway of $67,500,000.

Following the building of the first elevated lines in Chicago, lands from a quarter to a half mile on each side of the new lines took spectacular rises in values, and were quickly allotted and sold for home and apartment sites. In Cleveland the opening of a new rapid transit line, which split in half the time required to reach the Shaker Heights residential district, caused rises in values of from twenty to forty per cent within two years' time.

The effect of rapid transit systems spreading out over a city is to dislocate established centers and create new ones. In New York, constant growth and spread of the city was made possible by rapid transit. Heavy and constant traffic is necessary to make a subway system profitable. New York's growth was chiefly northward. It stretched the shopping district, originally at Chambers Street, to Grand Street, then to Fourteenth Street, later to Thirty-Fourth Street, and on to Forty-Second Street, and finally to Fifty-Seventh Street.

In the wake of the retail district there followed, as always, the jobbing, wholesale and manufacturing districts, with the customary sprinkling of small banks, shops, and restaurants, which hug the subway and elevated stations, and the crosstown traffic thoroughfares.

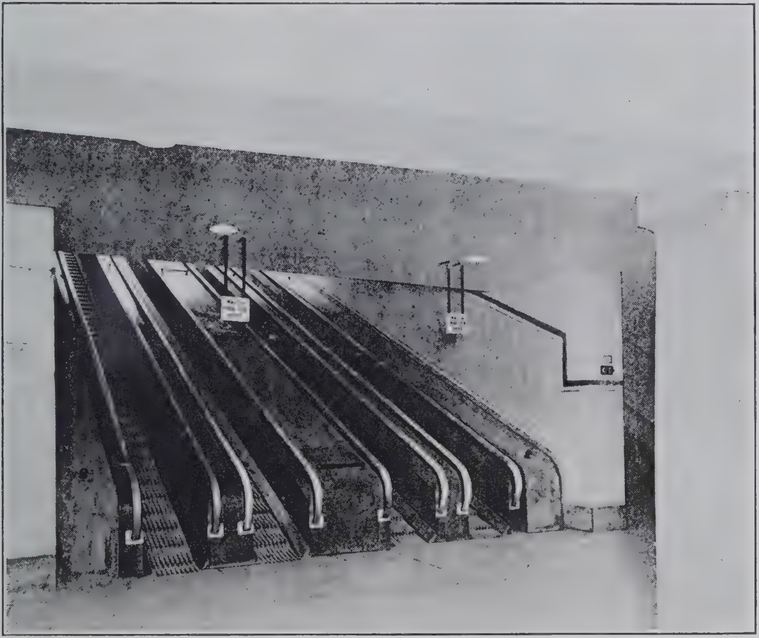
In New York the impetus to land values, although reflected soon after the announcement that the service was to come, really came after the construction of lines, or when construction was definitely assured. After a time values were stabilized, rising again when business development in a district had turned the speculative value previously attained into an economic value.

SUBWAY ENTRANCES CAN BE BUILT ARTISTICALLY

An objection sometimes raised to locating a subway station near a large monumental building is that it will mar the appearance of a costly structure. This entrance of solid bronze is a part of Boston's public library building. It in no way detracts from its surroundings. Subway entrances often are made through the basements of large store and office buildings, adding to values because of the retail possibilities in connection with them.

The shift of the centers of population which followed the opening of new lines of rapid transit in New York, although it took twenty years to fully accomplish, made possible the uptown shopping and theater district, which centers around Forty-Second Street, some five miles north of Wall Street and Broadway, where the financial district is located.

Rapid transit, either elevated or subway, causes the growth of rows of shops along streets which it follows, drawing this class of business away from former centers. Corners are the most valuable, where stations are located. Values decline rapidly beyond one hundred feet distance from the station, coming to a dead low center midway between stations. There are necessarily exceptions to the rule.



THE KIDDIES VOTE FOR THIS!

Climbing stairs out of a subway station is necessary, but not always enjoyable. This escalator, with two runways down, and two going up, may be found in Boston subways. While convenient, it has been found impossible to insure against accidents upon such devices, though comparatively few occur.

The result, whatever it is, will reflect—

1—The changed utility of the property due to increased accessibility and advertising value.

2—The purchasing power of the increased number of persons who, first from necessity, and, later from habit, circulate around the stations. The future course of land values along new lines of transit may be forecast to some degree.

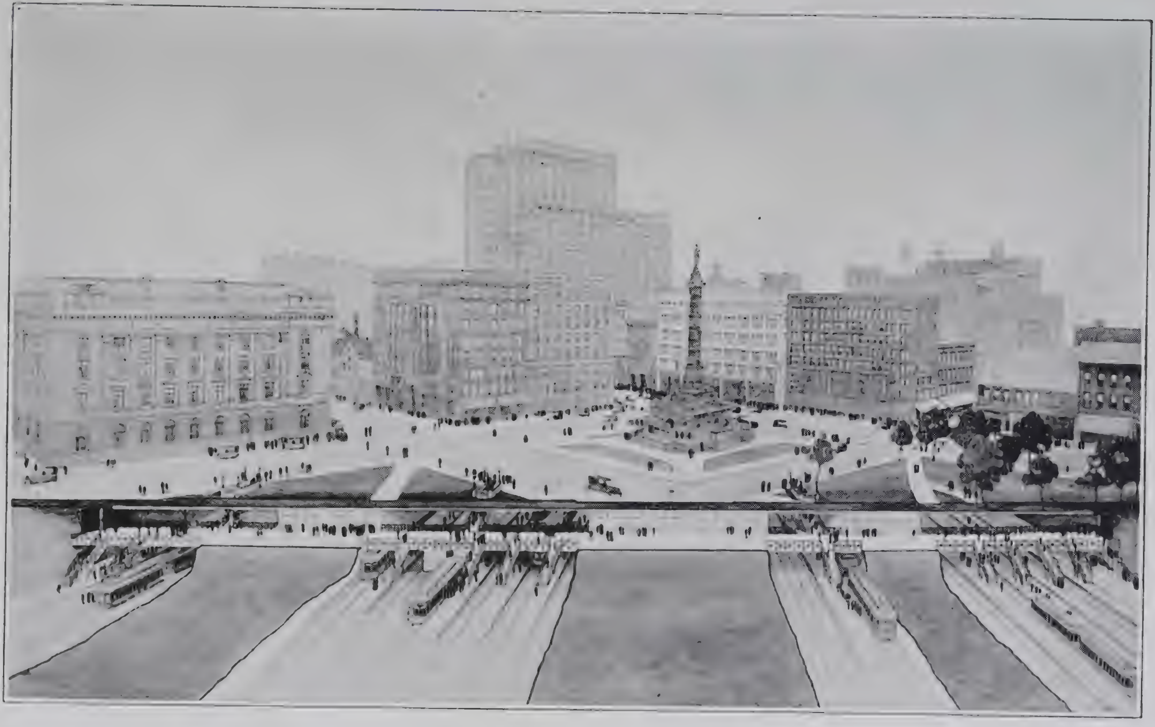
City bus lines, some of which have been operated along Fifth Avenue, and over New York streets for many years, do not make for steady land values, although if operated long and regularly enough to establish a record of permanency, they affect rental values and store centers to some extent as do other transportation agencies.

While not furnishing the speedy service afforded by well equipped subway and elevated trains, a secondary type of rapid transit is available in many of the larger cities through the medium of bus lines operating to suburban territories and to neighboring towns and cities. This form of transit is comparatively fast after leaving the crowded streets of the city itself, and is superior to surface electric cars. Many city workers travel by this manner to outlying suburban sections and towns, fifteen or twenty miles from their employment.

With the increased use of the automobile, street congestion has multiplied many times. Where ten years ago there was but one automobile to every 500 persons in the United States, now there is an auto for every eight, with the ratio increasing rapidly from year to year. Many now drive to work from outlying residential districts. Access to the city has been widened by many miles. This has tended to increase the population of the city itself and tends to increase congestion of the central business districts.

Some of the best retail shopping streets in large cities have no rail transportation systems on them. Fifth Avenue in New York City has neither overhead, surface, or underground railways. In recent years, motor busses furnished street transportation on this famous street. Nicollet Avenue, Minneapolis' fine business street, and Michigan Boulevard in Chicago are without rail transportation systems.

Usually merchants catering to a general trade prefer locations on streets having surface, or subway lines, making it possible for all classes of city dwellers to reach their establishments to trade. However, shops catering to exclusive trade, carrying expensive lines of merchandise, seek the fashionable street, and often this street is without a railway. Automobiles furnish the means of access to such shopping streets, although



SUBWAY TERMINAL PROPOSED FOR CLEVELAND

Cleveland is built in fan shape along the south shore of Lake Erie. Its ten or more radial thoroughfares converge at its Public Square. This is a study made by subway engineers for the handling of traffic from different lines at a great transfer station in the very heart of the city. All of the work would be underground, the parkway being replaced after the necessary excavating had been done.

the advent of the motor bus in the past few years has made these shopping districts accessible to all.

There has been a marked tendency in certain cities during recent years toward important business sub-centers in outlying districts. Baltimore has a number of these localized shopping districts. Cleveland has the Euclid-105th Street district, and the West 25th Street section, and a number of others. Those just referred to are not small neighborhood shopping centers, but are well established sub-centers catering to a trade quite as distinct from a neighborhood trade as that carried on by down town shops. Theaters, restaurants, drug stores, etc., find locations in these centers, as well as branches of large retail establishments and independent shops.

SUBWAY "WELLS" SOMETIMES UGLY AND DANGEROUS

This type of "well" through which a surface line descends to a subway level is far from attractive, and is sometimes even dangerous. A means of overcoming this difficulty is to purchase land at the side of a thoroughfare and bring cars to the surface at one side of the street, later permitting the surface lines to curve out at a gentle angle to the street on which the line is to extend.

Rapid transit and the automobile can be credited for this tendency in city growth. Roger Babson in a letter to clients in June 1923 said that because of the exodus of wealthy families to homes in suburbs, and the congestion of automobiles in most cities, down town retail shops will lose their exclusive trade to shops located in suburbs, where shoppers may readily park their cars and avoid the traffic congestion of the central business district. He advises retail merchants catering to exclusive trade to seek locations for shops in the suburbs. Should such a transition as prophesied occur, the inevitable tendency will be to depress rents on many of the most exclusive down town shopping streets, and consequently depress city land values, particularly upon streets where auto parking is forbidden.

CHAPTER 19.

PRIVATE RESTRICTIONS AND THEIR EFFECT ON LAND VALUES

Restrictions imposed by deed or contract—Effect on city growth and development—How restrictions affect land values in districts devoted to business use—Effect on residential sections—Companies refuse to sell to undesirable people—Examples of high grade developments—Business property not usually restricted—Problem of restrictions in districts changing from home to business uses—Restrictions on property ripe for retail development detract from its market value.

Many deeds to land contain restrictions imposed by the grantor against its use. Long term leases impose numerous restrictions which are often burdensome to lessees. The practice of imposing restrictions has become so prevalent that consideration must be given to the effect of such restrictions upon city growth and land values.

It is possible to so impose restrictions upon the use of a parcel of land as to entirely deprive the owner of its enjoyment. Restrictions of such a character probably would be declared by the courts as unreasonable and illegal, especially if unlimited in time and where full consideration had been paid for the land by the grantee.

It is not unusual for deeds to be so drawn as to prevent the use of land for business purposes. Operators in subdividing acreage for high class allotments, frequently provide stringent restrictions as to building lines, cost of the residence to be constructed upon each lot, the number of buildings upon each lot, type of construction, and the square foot area to be covered by buildings so constructed. Some deeds contain restrictions against construction of garages other than those attached to the residences themselves. Others provide against gardens other than flower gardens to be planted within a certain number of feet of the front line of the lots, intending by such limitations to prevent lot owners from planting vegetable gardens in front of their houses.

It is quite customary at the present time to restrict an area against business use for from fifty to one hundred years in order to maintain the district as a strictly high class residential neighborhood.

Where such restrictions are considered reasonable by the courts they will be enforced. However, diligence is the price required of lot owners in such a restricted district and if violations are permitted without complaint on the part of neighboring owners, it is difficult, and often impossible, to maintain restrictions in effect by recourse to the courts.

NOT A PUZZLE BUT A GRIM FACT

In preparing for the construction of subways tremendous difficulties often are encountered. Here is a New York street which was being prepared for a tube. The maze of pipes, wires, conduits, and sewers had all to be relocated before excavating could proceed. This is one of the reasons why subways are costly to construct.

It is generally conceded by persons versed in residential real estate values that restrictions imposed upon the use of lots in an allotment contemplating the maintenance of the residential character of the district for a period of years will enhance the desirability of the neighborhood as a location for high grade homes.

Home builders seeking to invest substantial sums of money in fine houses desire to know that a neighborhood will be maintained as a district of homes for a sufficient length of time so they will be undisturbed in the enjoyment of property. Few wish to invest large sums in homes in locations where business blocks soon may be built with accompanying heavy street traffic and where, perhaps, next door may be constructed a cheap apartment house, or a building with small stores.

In an allotment where the subdividers wish to obtain prices in excess of $30 per foot front, it is almost imperative that reasonable restrictions be imposed upon the use of land to maintain its residential character for at least twenty-five years. The higher the price asked per lot, the larger the lots, and the finer the improvements originally installed, the more stringent restrictions required in order to make the allotment attractive to the class of purchasers who are able to pay high prices. This is particularly true in high grade residential sections in or near great cities.

In order for the restrictions to be effective, the area restricted must be of sufficient size to effectually bar cheap homes, small stores, apartments and other types of business uses considered detrimental to high grade residential neighborhoods.

In some allotments attempts have been made to prevent the sale of lots to so-called undesirable people. Courts, however, have refused to enforce restrictions of this nature and where such restrictions are imposed by the contract of sale or the deed there is danger, that in a test case, all restrictions contained in the instrument will be attacked and possibly invalidated upon the theory that the various restrictions which are admittedly legal cannot be separated from illegal covenants.

Many allotment companies refuse to sell lots to so-called undesirables and thus for a time at least control the occupancy of the neighborhood. Upon resale, however, the lot may pass into the hands of anyone subject to the lawful limitations imposed by the allotment company upon its use.

A few examples of allotments most highly restricted by the subdividers are the Shaker Heights developments of The Van Sweringen Co. in Cleveland, the Ridgewood park allotment in Springfield, O., Ottawa Hills in Toledo, Roland Park in Baltimore, and the Nichols development in Kansas City.

While stringent restrictions are usually necessary to a high grade residential development, care must be exercised in the layout of the district in order to provide suitable areas readily accessible for small shopping centers. Housewives usually desire to have within short driving distance good small shops where a variety of purchases can be made. This shopping area can be so restricted that its presence will benefit the allotment instead of detracting from its value. Builders can be required to submit plans to the allotment company for approval or revision, and cost limitations can be imposed. Restrictions as to the use of such property will aid in making the shopping district high grade and contribute real value to the entire district.

Where a lack of foresight has operated to restrict the entire area against any business use, and great distances intervene between shopping centers, making shopping for the housewife difficult, many prospective purchasers refuse to locate there.

In properties sold for business use, restrictions upon use have no place. Invariably values are undermined where, in a district lying in the path of business growth, deeds contain restrictions which limit its business use.

Where land upon a street, once residential in character, has been restricted so as to prevent its use except for residences, an effectual bar is raised which may retard the growth of the thoroughfare as a business district. In such case it is necessary for owners to join and mutually release the various properties from the operation of the restrictive covenants, a slow and difficult procedure, for if one owner refuses to assent, the restrictions, if properly drawn originally cannot be released.

This situation arises often on streets like Woodward Avenue in Detroit, Euclid Avenue in Cleveland, and Delaware Ave. in Buffalo, all at one time famous as residential streets. These streets are axial in character leading away from the center and principal business districts of each city to suburbs and country. It is quite natural for business to develop eventually along these routes.

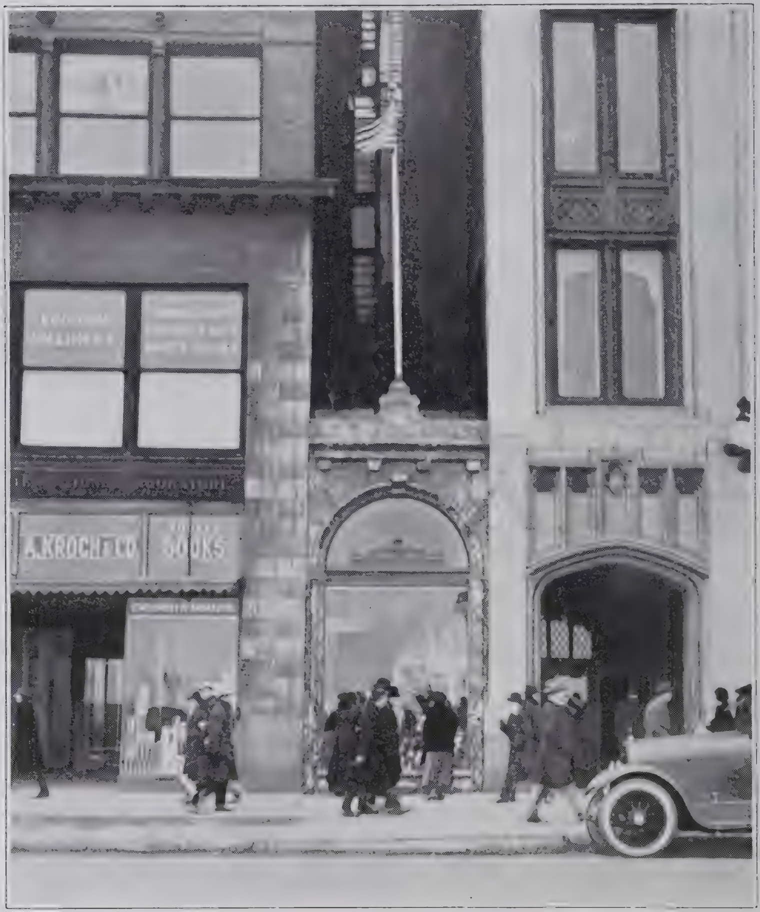
Between E. 85th and E. 89th Streets on Euclid Avenue in Cleveland, stringent restrictions forbade the use of the property for other than residences until 1929. Because of the change in character of the street in this neighborhood, the territory ceased to be desirable for residential purposes. Fortunately the owners all agreed to release the restrictions and the property became available for business development. However until this was done, owners were not able to obtain one half as much for their frontage in this restricted district as were owners of property adjacent thereto which was unrestricted.

In a certain large city, on the principal business street an owner so restricted a corner lot sold to a church that the lot could never be used for purposes other than the erection of a ''First Church of Christ Scientist'' or for a residence. At the time the lot was purchased the street was not yet given over in this district to business use. With the growth of business it is impossible to contemplate the district ever again becoming valuable for residences. The church can be built, but no other church can be built except the one named and this restriction has so limited the use of the tract that it can never with the restriction existing, be one half as valuable as the abutting land. The chief assessing officer of the city, recognizing this condition, upon application, reduced the valuation of the property for taxation twenty-five per cent, it not yet being used for church purposes.

During the past thirty or forty years there has grown up a tendency to place in deeds and leases covenants against the use of liquor of an intoxicating nature upon the premises conveyed. Such restrictions may be unnecessary in the light of the prohibition laws of the nation and the various states. Originally the restrictions so contained in leases were imposed by owners largely because they considered the liquor traffic an undesirable business for a property and detrimental, not only to the physical value of the buildings but to the value of the land. Where deeds were so restricted, usually it was part of a general scheme devised by an allotment owner to maintain the high grade character of the subdivision as a residential district.

Without considering the technical legal phases of restrictive covenants in deeds and leases, usually where limitations upon the use of a tract of land are imposed as a part of a general scheme, the restrictions being reasonable and uniform, and not haphazard and arbitrary, and where they run with the land for the benefit of the grantor and all lot owners in the allotment, and where limited as to time, restrictions are enforcible, even though business development has reached the very boundaries of the allotment so restricted. However, vigilance must be exercised to prevent violations which will tend to change the character of the district since courts look askance at restrictive covenants as limitations upon the free use of property and are always unwilling to enforce them where it is feasible to read them out of existence.

Briefly, restrictive covenants in deeds to residential property contemplating the maintenance of the district for home use, limitations being against apartment or business use, will enhance the value of the section for home sites. Land restrictions tend to block the growth of a business area, and often will turn the development to another street to the detriment of the street so restricted, and generally may be considered as detrimental to districts in the path of retail business growth.



Copyrighted, Underwood & Underwood

CHICAGO'S SMALLEST STORE

This quaint little store fronting on Grant Park at 28 North Michigan Avenue was built between the twenty-story People's Trust Building on the north and the ten-story Ward Building on the south. It seems that restrictions prevented these two properties being built on nearer than five feet to their lines. Finally the owners agreed to permit the erection of a small store, ten feet wide and 100 feet deep, which is rented to a florist at $12,000 per year on a fifteen year lease. When the present lease expires a much higher rental probably will be charged. Entrance to the store is through the doorway to the building on the right.

CHAPTER 20.

NUISANCES

A nuisance is an element which works a hardship or damage —Public and private in character—Many businesses are of such a character that they depress values—When such a business becomes a nuisance—Nuisances in a residential district may not be nuisances in a business district—Distinction between what the law considers a nuisance and what is in fact a nuisance—Bans upon certain business either by private or public regulations—Temporary nuisances of a transient character—Little relief afforded at law to fanciful nuisances —Much legislation in effect against undesirable conditions—Restrictions often imposed in deeds and leases against nuisances.

A nuisance is defined by Webster as "that which annoys or gives trouble; a thing that produces inconvenience."

The law considers anything a nuisance which inflicts hardship, inconvenience, or damage, or which essentially interferes with the enjoyment of life or property.

There are public and private nuisances. A nuisance is public where it affects the rights enjoyed by citizens as part of the public, that is, the rights to which every citizen is entitled. A private nuisance is anything done to the injury, annoyance, or detriment of the lands or property of another, not amounting to a trespass. Thus any unwarranted, unreasonable, or unlawful use by a person of his own property, real or personal, to the injury of another, constitutes a private nuisance.

Anything affecting real estate values is essentially a private rather than a public nuisance. The injury done is special, direct and inflicted upon individual properties. There may be a great many properties involved, but although the injury may be quite general, damaging many owners and affecting a large amount of property, yet the nuisance is private in nature.

A nuisance at law is any act, occupation or structure which is a nuisance at all times and under any circumstances, regardless of location or surroundings. Thus it may be said that only a limited number of things are nuisances at law, and by far the larger class of nuisances are those which may be termed nuisances in fact, and consist of those acts, occupations, or structures which are not nuisances in themselves but may become nuisances by reason of circumstances, location and surroundings. Things that are nuisances in certain localities, in other localities would not be so considered.

There also are permanent, recurring, continuing and temporary nuisances, all readily defined by the name used. What are considered real estate nuisances are usually nuisances in fact, rather than nuisances at law.

Residential districts are more easily affected by adverse conditions than business properties although land values are lower, so that it may be said that the erection of almost any other building than a residence in a residential section constitutes a nuisance. Even apartments and terraces, which are residential in character, adversely affect a high grade home district and may be termed nuisances to such an area.

All kinds of factories, even those which emit neither smell nor noise, power houses and electric light plants, hospitals, business buildings, hotel and apartment houses, swamps, mosquitoes and odors, and all cheap, old and dilapidated buildings constitute nuisances. Unsightly, rough and rocky land, stagnant pools, unkempt creek beds, abandoned streets, in fact anything which detracts from the attractiveness of a neighborhood for residential use may be considered nuisances to such a district.

In former years when horses were used extensively, a street upon which was located either public livery stables or private stables was undesirable for homes. Street railroads on residential streets usually detract from values unless the street is wide and tracks are placed in the center with attractive grass plots between them and the roadways. Streets with street railroads upon them eventually attracts shops, apartment houses and terraces, and when this process of business development begins the desirability of the street for residential purposes declines.

Residences themselves may be nuisances to their neighbors if unusual or peculiar in type, unsightly, out of repair, unpainted, or if covering an abnormal proportion of lot area, as where the entire lot is covered except for light wells.

Other things which have been held to be nuisances by the courts under certain circumstances are: electric sign boards; ball parks, always a nuisance to a residential district; bawdy houses, saloons, junk yards, blast furnaces, sewage disposal plants, garbage disposal plants, soap and glue factories, cess pools, cemeteries, coal sheds and coal yards, trestles, jails and penitentiaries and certain other public buildings. All of these are nuisances in themselves because such uses render a neighborhood undesirable as a residential district. Few are subject to injunction or abatement as nuisances at law unless special circumstances justify.

The character of nuisances varies according to the section in which they are located, the cheaper the property the less subject to depreciation because of the presence of a nuisance, the more expensive the property, the more sensitive to the leveling power of proximity to nuisances.

Business property, too, is subject to the effect of nuisances. High grade retail business property is detrimentally affected by undeveloped tracts of land upon which old dilapidated buildings, formerly residences, are located.

Adjoining vacancies, whether caused by rebuilding, fire, removals, failures or what not; low class neighbors such as saloons and gambling houses, dilapidations, whether of buildings, sidewalks, streets, or surroundings; topographical faults, such as sharp variations of grade, streams, and anything which will adversely affect the conduct of business in a given location may be considered nuisances in fact though usually not considered to be at law so as to afford remedy through the courts.

High level bridges while operating to the advantage of the public and property owners having locations at either end and on a level with the roadway of the bridge, may be considered nuisances to buildings on the subgrade, since the bridge carries all traffic past their doors. For example, the new high level viaduct constructed in Akron, the Eighth Street viaduct in Kansas City and the High Holborn viaduct in London are of this character.

A tall stack on a building, belching forth sooty smoke is distinctly a nuisance to adjoining office skyscrapers and their tenants. Electric signs flashing lights through windows of office buildings often are given as reasons for tenants moving from the section of the buildings so affected.

Temporary nuisances may be considered as those whose effects are transient. Removal, repair or relocation of street car tracks in a business district is destructive of trade because of obstructions encountered by pedestrians and vehicular traffic. Torn up streets, sidewalks blocked by construction materials and sheds, packing cases and piles of rubbish are all temporary nuisances.

The chief variation in the normal rental yield and resulting land values of various utilities in various districts is in the form of deductions due to nuisances under which may be classed in a general way almost anything tending to depreciate the value of the land and as a location for the use desired.

Whether or not a nuisance can be abated, or if not already established, enjoined, depends upon varying circumstances. It is not every annoyance or inconvenience suffered by a property holder from what is done in his vicinity which constitutes a nuisance against which he is entitled to relief, for what may be a serious nuisance in one locality by reason of the density of population or the residential character of the neighborhood affected, or the nature of the specific act, may, in another place and under different surroundings be deemed proper and unobjectionable.

The injury or annoyance which warrants relief against an alleged nuisance must be of substantial character and such as impairs the ordinary physical enjoyment of the property within its zone, for if the injury be merely theoretical, or if it be slight or trivial, or fanciful, or one of mere delicacy or fastidiousness, there is no nuisance in a legal sense. So it can readily be seen that there is no relief against many of the things which in fact tend to depreciate the value of real property, for often what is most influential in determining the value of a location depends upon the whim of individuals seeking a home site or shoppers desiring to trade.

Legislation has been passed declaring many things to be nuisances and subject to abatement as such. A place selling liquor in violation of law can be closed as a nuisance under the Volstead Act. Often ordinances are passed prohibiting the granting of building permits for buildings in certain districts designed for the housing of nuisances. Garbage disposal plants, factories making glue and soap, boiler shops and many other businesses are relegated to districts distant from localities where the obnoxious character of the business will affect the enjoyment of the neighboring land. Often restrictions of a private nature are imposed by deed or lease upon properties to prevent their use for purposes which will tend to depreciate the value of adjoining land.

Summarizing, a nuisance from the standpoint of real estate values, is a structure, condition, or manner of utilization of property out of harmony with the general character of the neighborhood, and thereby tending to destroy its desirability for its prevailing use.

Copyrighted. Underwood & Underwood

THE WORLD'S LARGEST FERRY TERMINAL

Fifty million people pass each year through this great ferry terminal at the foot of Market Street in San Francisco. The building, which cost $1,177,000, accommodates nine boats at once. These ply from San Francisco to Oakland and other towns and cities on San Francisco Bay.

CHAPTER 21.

LAND TENURE AS AFFECTING VALUES

Classes of land tenure common in the United States—Fee simple title of highest value—Encumbered fees—Estates less than freehold—Leaseholds—Fees subject to lease—Effect of tenure upon land value—Land contracts.

In the valuation of land a distinction must be recognized between the physical characteristics inherent in a property itself, and the manner or mode of its ownership. Topography, geographical location, soil conditions and the utilization of nearby properties are all influences which affect the value of a tract of land favorably or adversely without reference in any way to the tenure under which it is held.

The manner by which land is held is equally important in determining its exchange value as are its physical conditions. Conditions surrounding its ownership often will cause an otherwise valuable property to be unmarketable. Possession of land unaccompanied by the right to its use and the power of its disposition is valueless. Value in land is its utility or worth measured in money. Of what value would be a tract of land in the heart of down town New York unless the owner had the right to use it for profit or to permit others to so use it? Such land might have ideal physical conditions and yet have no value to the person owning it because of the restrictions limiting its use.

It may readily be seen, therefore, that land values are not solely dependent upon location, desirability, physical and topographical features and other characteristics inherent in the particular property itself, but also upon its availability for use.

Tenure is the name given to the mode of holding real property. The conditions surrounding the holding determine the type of land tenure. Tenure is a factor of prime importance in the determination of the value of real property.

The leading tenures common in the United States are the following:

FEE SIMPLE. An estate in fee simple, more commonly called a fee, carries with it the absolute and unlimited disposition of the property. The owner can do as he pleases with his land, subject to legal limitations such as restrictions imposed by deed or by zoning laws controlling the construction of buildings, and subject also to such regulations under the police power for the benefit of the general public, and the right of eminent domain.

A fee simple tenure is the highest form of land ownership and is therefore the most valuable and most desirable. Other things being equal, such land will sell at the highest price.

Where a fee is encumbered by liens or mortgages, the use and power of disposition is thereby limited and the exact nature and effect of the encumbrance must be understood and proper allowance must be made in determining the interest of the owner. In case the lien or encumbrance is such that it can be easily removed by the payment of a sum of money less than the actual price that could be obtained for the land by a free sale, the value is not materially affected. Should liens and encumbrances be such that title cannot be cleared in such a manner without the necessity of a foreclosure suit, the price which purchasers will pay for the property is materially reduced. The great majority of purchasers avoid buying into a law suit, and where someone is found willing to take the risk the price reflects the risk assumed.

In a degree this is true even where encumbrances can be removed by a money payment, provided the total of the encumbrances, including mortgages, liens, taxes, penalties and assessments, exceed ninety per cent of the land value. It is usually difficult to find a purchaser who will agree to buy the property so encumbered, for its full value because of the difficulties frequently encountered in clearing title and the possibility of delay in delivery of full possession. A property so encumbered frequently reflects the straightened financial condition of its owner and encourages the prospective purchaser to bargain for a low price, the transaction thereby assuming the characteristics of a forced sale.

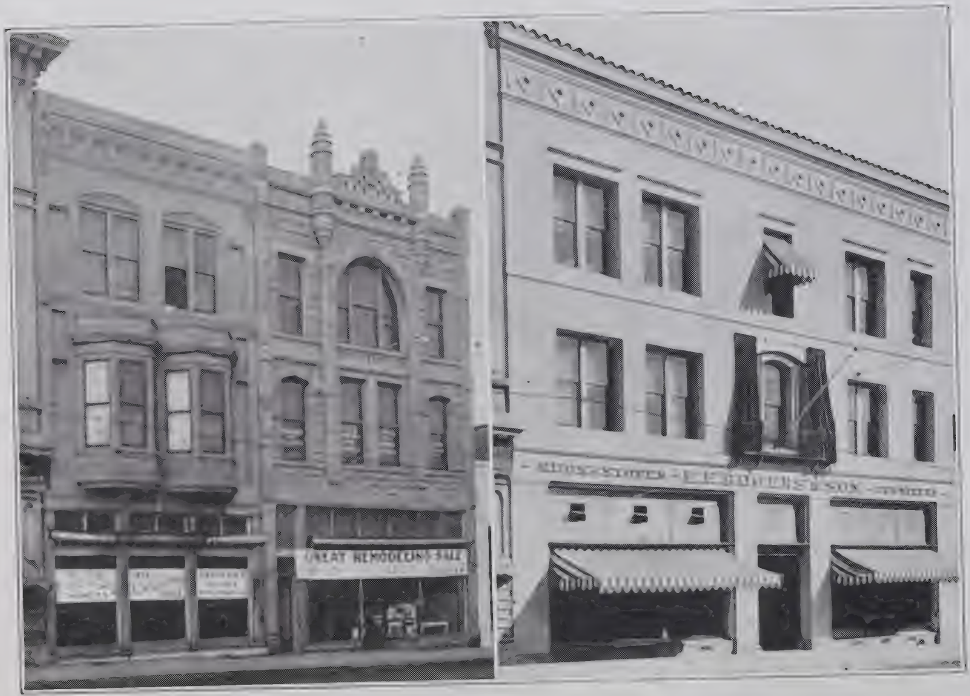
Property is frequently more readily salable where mortgages in reasonable amounts and upon fair rates of interest can be assumed. However, this situation must not be confused with the conditions where the total encumbrances are such a large percentage of the value of the property as to detract from its sale value.

Some fee ownerships are restricted as to the use to which they may be put. Restrictions which apply equally to all surrounding land, especially in residential sections, may be beneficial and result in increased values. Zoning laws in business districts, if uniform and reasonable, are usually considered as adding to the value of the properties involved. A full knowledge of the nature of the restrictions is necessary to the appraiser before he can determine their effect on value.

A fee simple interest in a tract of land is frequently subject to a lease by which possession and control of the premises is vested in the lessee. The value of the fee under such a lease must depend largely upon the lease terms. The general effect, however, is to depreciate slightly the value of the fee interest unless the rent reserved yields a net return upon a valuation somewhat in excess of the fair market value of the property. A leased fee is readily salable to investors who are seeking an assured income at a fixed rate of interest free from taxes and the responsibility of management.

Perpetual leases convey to the lessee practically all the advantages arising from ownership. The value of the fee simple estate is then determined by the capitalization of the rents reserved at the current rate of interest. Where such a lease contains the right to purchase the fee for a fixed price or for a sum to be arbitrated, this must be taken into consideration by the appraiser. Where the price is fixed, it is evident that the fee value cannot exceed the stipulated purchase price during the period within which the purchase option may be exercised.

ESTATES FOR LIFE. Such an estate is an interest in land to last during one or more lives, and may be enjoyed by the person upon whose life it is held or by another. The estate depends upon the uncertainty of life and is therefore to a degree highly speculative as to duration. The life tenant usually has the use of the property either while he lives or during the period that some other person lives. The reversion or remainder is the interest which vests upon the termination of the life estate.



MAINTAINING PHYSICAL VALUE IN BUILDINGS

The old building on the left, located in Santa Barbara, Calif., was structurally sound but had an unattractive front. Its owners rebuilt it along the lines indicated on the right, making it one of the most attractive stores in its locality at a comparatively small expense.

There is little if any market for life estates in America, although in England life insurance companies will purchase such interests, setting up a reserve based upon the expectancy of the life tenant to protect the investment. Occasionally English investors will purchase a life estate and immediately take out a policy of insurance upon the life of the life tenant to protect them from loss certain to occur upon the death of the tenant when the remainder falls to the remainderman.

Many states in the United States have enacted statutes permitting a life tenant to alienate his life estate through court procedure and thus sell the fee simple title to the property. Before such a sale is permitted it must clearly appear that such a sale is necessary in order to make a better investment of the funds represented in the lands. Usually the condition surrounding the ownership of the fee is carried over to the fund and to any future land investments made from the proceeds of such a sale.

Banks and mortgage houses rarely lend money upon the security of a life estate. If such a loan is made, more importance is attached to the personal responsibility of the borrower than upon the specific interest pledged to secure the debt.

A life interest may be valued by use of mortality tables whereby the expectancy of the life tenant can be determined. Because of the qualified character of the ownership, a property subject to a life estate rarely brings, upon sale, full value. The same is true when the interest of the life tenant is the object of the sale. The depressing effect of such limited ownerships are reflected in the price which purchasers are willing to pay for such interests.

LEASEHOLDS. A leasehold is an interest in land less than a fee simple, in which the lessee assumes possession and control of the premises for a fixed number of years, or, in some cases, perpetually, usually subject to the payment of rent to the fee owner and the fulfillment and performance of the conditions of the lease. Long term leases frequently give the lessee an option to purchase the underlying fee either for a fixed sum or at a price to be arbitrated.

The base or underlying lease upon a property is called the virgin lease. Subleases are often made based upon the lessee's interest. One holding an underlying lease deals directly with the fee owner and is not subject to the danger to which a sublessee is subjected by being disturbed in his possession through any failure or default on the part of other parties prior to him in interest.

In the valuation of a leasehold interest the unexpired term is of prime importance. If the period is short, the salability of the lease is limited to a class of speculators who demand a high return for the risk involved. Furthermore where the end of a term is near, the tenant is apt to be under the necessity of making certain necessary repairs and replacements to fulfill the covenants of his lease before surrendering possession to the fee owner, all of which tends to depreciate the value of his interest.

The nature of the covenants and conditions of the lease are of such importance in valuing leaseholds that, in the absence of exact information, no accurate valuation can be made. The value of a leasehold is determined by weighing the benefits against the burdens. The liability to pay taxes, make repairs and improvements upon the premises, the limitations upon the use, all affect the value of the leasehold just as much as does the amount of rent reserved.

During the past twenty years, the long term lease has become popular in the United States as a form of land tenure. Most frequently it takes the form of a ninety-nine year lease. This form has gripped the imagination of realty operators, owners and investors in large cities so that the lessee's interest in such a lease has become readily marketable. A full discussion of long term leases can be found in Stanley L. McMichael's book, "Long and Short Term Leaseholds."

A long term lease has in general the following provisions:

1. Rents—either flat for the entire period, graduated for stated periods or fixed by arbitration or appraisal upon a percentage basis at intervals, ranging from five to twenty years.
2. Tax clauses providing who shall bear the taxes charged against the property.
3. Bond provisions fixing the amount and conditions of a bond to insure the payment of rent, and the fulfillment of the other terms of the lease, including the building covenant.

4. Purchase option, extending to the lessee an option to purchase at a designated time the fee title to the premises at a price fixed by the lease or determinable in some stated manner.

5. Building clauses, providing for the erection of buildings or improvements upon the land by lessee within a stated time to further insure the fulfillment of the lease terms.

6. Forfeiture in case of failure to fulfill the lease conditions.

7. Termination clause determining the manner in which the interests of the owner and lessee shall be adjusted upon the expiration of the term.

8. Appropriation clause setting forth the method whereby the adjustment of interests shall be made in case the entire property or a part thereof shall be taken by appropriation proceedings for public use.

9. Provisions governing many minor contingencies apt to arise during the term of the lease, such as provisions against use of premises for illegal purposes, covenants against waste, and the like.

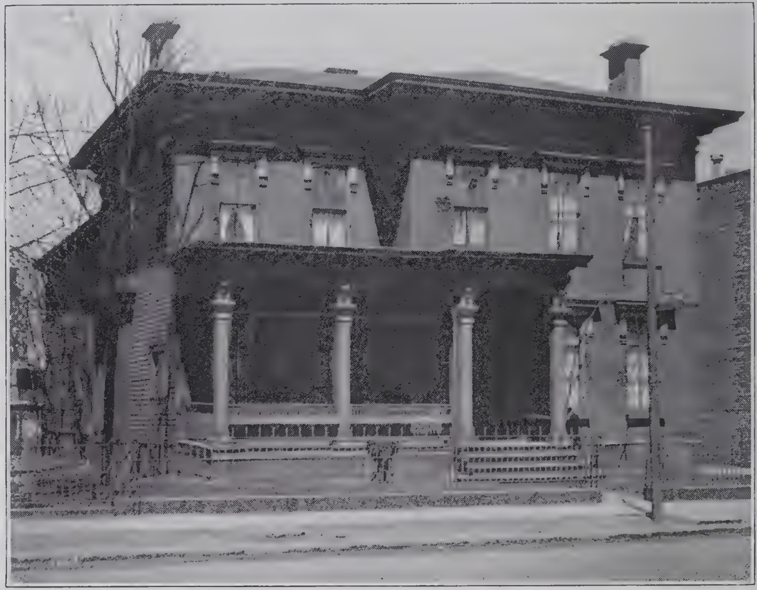
10. Renewal, if any, granted upon certain conditions stated in the lease.

Leases vary so much in covenants and conditions that it is impossible to enumerate what may be considered the standard provisions of a long term lease without writing a whole book upon this interesting subject. However those provisions above enumerated may be termed the essential features of a long term lease.

In effect a ninety-nine year lease is a loan to the lessee amounting to the full value of the property, and the lessee pays current interest rates for his loan, his interest being termed in this case, rent.

Leases, and fees subject to long leases, are readily marketable. The lessee under a long term lease gets the benefit of any increment which may occur in the value of the real estate in the location where his leased premises are located. He realizes his profit either by erecting buildings upon his leasehold from which he obtains rent, or by selling or subleasing his leasehold.

A fee owner whose property is leased for a long term of years has a guaranteed income, secured by bond or improvements constructed by the lessee, or what is better security, in districts where land values are increasing, by the enhanced value of the property. The rental is usually net, the lessee paying all taxes upon the property, except income and inheritance taxes. Property producing a net income has a ready sale value, usually at a small discount from the capitalized value of the rents at the current rate. Trust companies and large estates seeking income producing properties are ready purchasers of good fees subject to ninety-nine year leases.



TRANSITION FROM HOME TO BUSINESS USE

This old residence, acquired by an enterprising building contractor, Geo. A. Rutherford, is located on Prospect Ave., Cleveland, a street rapidly developing as a business thoroughfare. Note on the opposite page what he did to it.

Short term leaseholds are bought and sold, usually, in connection with the purchase of a business operating in the leased premises. Here, too, the provisions of the lease have much to do with the price obtainable.

LAND CONTRACT. The market for property held under land contract is not as active as in other forms of ownership. Occasionally a purchaser contracts to purchase a parcel of land and before the final transfer is made, he sells his contract and assigns all his interest therein, the assignee obtaining the deed to the property. Whether this can be done depends entirely upon the terms of the contract. If it is not assignable, then the original purchaser must fulfill his contract before he has the right to transfer ownership in the property.

WHAT SKILLFUL REMODELING WILL DO

Here is the same old house shown on the opposite page after it was remodeled for office purposes, with drafting rooms above. Perhaps the instinct for doing this sort of thing was the reason why the contractor was elected president of the Cleveland Advertising Club.

Lots in subdivisions held on land contract are not readily salable for full value. Usually such lots are purchased at less than the market value, inasmuch as investors do not look with great favor upon land contracts as evidences of ownership. Title stands in the name of the vendor until all the conditions of the contract have been fulfilled and unless the laws of the state in which the property is situated permit the recording of such contracts, the vendor, acting fraudulently may convey the property to an innocent purchaser for value without notice of the rights of the vendee, and the original purchaser will be forced to rely upon the personal responsibility of the vendor for damages sustained.

LAND ACQUIRED BY EMINENT DOMAIN. Property acquired through condemnation proceedings by a railroad or other public utility, or a municipality, is held not in fee simple, but on what is known as a base fee determinable when the property ceases to be used for the public purpose for which it was condemned. This type of ownership is in effect merely an easement for public use. Land so appropriated for public use by corporations having the right of eminent domain will revert to original owners when the use is abandoned. This operates to make utilities pay prices somewhat in excess of true market value in order to obtain a fee interest by purchase rather than a limited interest through appropriation or condemnation proceedings.

EASEMENTS. Easements and rights of way established over tracts of land operate usually to the detriment of the servient estate and to the advantage of the dominant estate. The property over which the easement runs, is denominated the servient property and the property to which the easement is appurtenant is the dominant estate. Easements for driveways on lot lines for the mutual benefit of adjoining owners usually operate to the detriment of each property when the land becomes valuable and is needed for business development. It is usual when valuing a lot which has an easement over it, to deduct from the frontage if the easement runs lengthwise of the lot, the width of the easement, and apply the front foot value to the remainder, separately valuing the land over which the easement runs, at very much less.

Thus it is noted that not only location, size, shape, topography and other objective characteristics of the land determine its market value, but also its tenure, the state of the title, and other conditions which limit the full use and enjoyment of the property.

CHAPTER 22.

LAND VALUATION

Valuing land is not an exact science—Land differs from other commodities in that it is individual in character—Subjective value versus objective value—What is market value? Effect of speculative conditions upon land values—Scattered sales do not represent market value—Analysis of sales best guide to land value—Cardinal factors in determining value.

Valuing land cannot be classed as an exact science. The appraiser is governed in his considerations by various factors which contribute favorably or unfavorably in influencing market value. A building may be accurately valued. Costs may be ascertained in such a manner that the variation between the values determined will be slight. This is not so with land.

Increase in land values in a city is, in a measure, a baromoter of its growth. If a city grows in population and its land does not have an upward curve in value, there is something radically wrong. It may be seen, therefore, that in considering the subject of city growth and values it is essential for the investigator to realize the relation that the appraisal of land bears toward the subject. An expert appraiser, upon learning of the peak value established in a business district in a city can frequently approximate the city's actual population, so definite and established has become the relation between population, the use of land and its worth.

There are four cardinal factors which determine value in land. The first is location, which includes accessibility; the second is utility which comprehends its capacity to produce; the third is shape and topography and the fourth is size. So much depends upon the judgment of the appraiser that absolute accuracy in valuation can never be achieved. If it were possible to scientifically measure the influence of each of these factors, then perhaps a theoretical value could be ascertained which would approach scientific accuracy.

All land is individual and unique in character. In this respect it differs from commodities which are readily reproduced in quantity and bear identical features. Each tract of land differs in some material respect from its neighbor, and therefore possesses different elements of desirability. Values in land are not absolute but relative, so that with each parcel of land essentially different and not reproducible, independent judgment exercises a controlling force in the determination of its worth.

The difference between land and other commodities is recognized by the shopper seeking to buy several boxes of matches. He does not make an individual examination of each match to see if it satisfies his personal requirement. He buys by class, his want being fulfilled when he is furnished the kind of goods requested.

The purchaser of land never goes forth to buy several lots without regard to where they are situated, their size or their physical characteristics. He examines each lot separately and his buying depends upon whether the land meets his personal requirements. Matches are essentially alike, but parcels of land possess different characteristics.

One writer has said, ''The value of bread is expressed in need; the value of a glittering diamond is expressed in desire.'' The value of real estate may be either or both.

An adjoining lot may be a present need to an owner whose business has outgrown its quarters, but to him a farm in California or Florida would be a desire. He measures the value of business property in terms of what it will produce for him in relation to his business. The farm may be worth as mere land only a few hundred dollars, yet if it suits his fancy he may pay thousands for it.

The subjective value of a piece of real estate depends either upon its direct utility to the owner or the utility of the commodities which he hopes to obtain in exchange therefor. It is a personal use value as distinguished from a use value which is general to all.

Objective value in land is what is generally termed market value. Economists suggest a rule for the determination of market price, stating that purchasers with the highest subjective exchange values are paired off against sellers with the lowest subjective exchange values until the process results in a pair ex-changing at a price which is then considered the market price. This price is reached by a process of bargaining, a practice as old as the ages.

Market value is the expression, in money, of the meeting of the minds of a buyer willing but not compelled to buy, and a seller willing but not compelled to sell. This rule is recognized by the law as applicable to real estate transactions although the units dealt in are not alike. A market price is determined as the result of a number of sales which have taken place at nearly the same time and place and at approximately a uniform price.

It is obviously true that in real estate transactions the units sold are not identical and therefore market value can never be as exactly determined as in other commodities. The best that an appraiser can do in fixing a value for a tract of land is to balance the favorable against the unfavorable characteristics and from his calculations estimate the probable price at which the parcel would sell if actually changing hands under the conditions existing at the time of the appraisal.

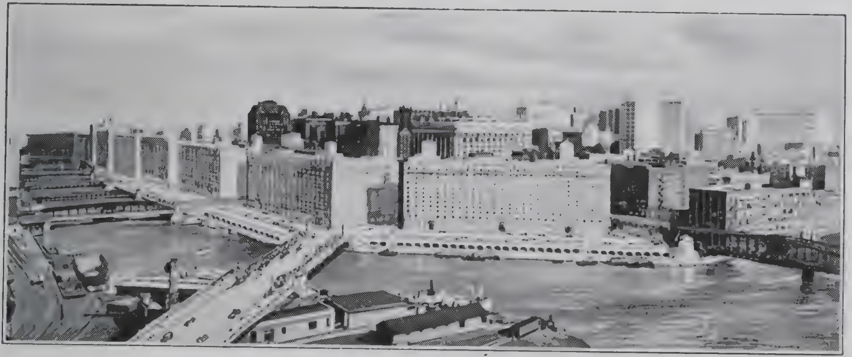
The problem is somewhat simplified if, in the district where the land is located, land values are relatively stable. Then he may use sales of nearby lands as criteria of value. If, however, speculative conditions exist, he must also weigh the relative change in value of lands used for the same purpose even if differing considerably in location and quality and not be guided entirely by sales in the immediate neighborhood.

Scattered sales do not represent stable market prices as a general rule. Often sellers forced to sell are discouraged in holding their property or are influenced to sell for reasons which should not and do not fundamentally control values. Likewise a purchaser may pay more than a tract of land is worth because of some reason which makes the parcel of particular interest or value to him.

Sales are frequent when values are fluctuating rapidly and a speculative market condition exists. This fact tends to keep the price fairly well marked. When sales are rare, values are somewhat more stable and normal and in the absence of sales to indicate the market, the appraiser must seek evidence of value from rentals and income to assist in the valuation.

Many indications of value must be considered by the land appraiser. First, he must inspect the individual property to be valued. Note of peculiar physical characteristics should be taken. Is the land level? Is it wet or marshy? What kind of soil conditions exist—stone, clay, sand or shale? Is it wooded? Topography with particular reference to the accessibility from the nearest street or road, must be considered. Geographical location should receive careful consideration. Observation of surrounding properties will aid the appraiser in estimating the value of the land for the particular use intended. If in a residential district,

THE CHICAGO RIVER AS IT IS TODAY



AS THE NEXT GENERATION MAY SEE IT

Here is the dream which Chicago's city plan commission has for the reclaiming of its river. Heavy traffic will move below, while lighter traffic will be carried on elevated roadways, with artistic bridges spanning the river at intervals.

the character of the homes nearby should be observed. In a business district, the type of buildings and the class of business accommodated are important in determining the use value of the tract to be appraised.

Having completed his inspection of the property, the appraiser next examines data to ascertain size, shape and relative location. This discloses to him in a comprehensive way, the position of the land with reference to thoroughfares and local streets, transportation facilities, its location with reference to business districts, and areas devoted to uses similar to the one to which the property is put or intended to be put.

Investigation of sales comes next in order. In analyzing sales it is necessary to weigh each transaction before accepting it as a criterion of value. In an active market with many sales occurring, transactions covering not to exceed the period of a year should be given consideration. Sometimes an examination over only a few months will be sufficient. Where transfers are infrequent then perhaps an examination should cover the period of two or three years. Occasionally it is necessary to consider sales beyond that time. Asking price is rarely a criterion of value.

The area reviewed should compare as nearly as possible in character with the land to be appraised. In business districts it is usually sufficient to consider only transfers of properties upon the same street and within a few hundred feet of the property in question. Sometimes like or similar tracts upon different streets may be compared in order to ascertain values. Where corners are involved often the appraiser is required to compare corners of similar nature some distance from the parcel under consideration.

In cities where long term leases have come into extensive use, it is proper for the appraiser to examine the lease terms on tracts within the area under consideration where the transactions are not too remote in time. Leases upon business property are sometimes made upon a basis of from ten to fifteen per cent higher than the property would sell for upon the market for cash, so that allowance should be made for this differential in value if present. Where a lease is being appraised a careful examination of its terms must be made in order to ascertain conditions which may influence the rentals paid. If restrictive covenants are found they must be carefully analyzed before the lease can be appraised.

In valuing industrial properties, sales may be considered within a wider area than a few hundred feet from the property in point. The nature of manufacturing land is different from commercial frontage. Display frontage is comparatively unimportant. Size and location with reference to railroads, labor supply and the like is of more moment. The only limitation upon the area within which sales should be considered, is marked by the inquiry as to whether the land is similar in nature and has been transferred within a space of time not so remote as to fall within a period when conditions governing the market were essentially different.

An analysis of sales of residential properties must cover a much wider area than when business frontage is under consideration. Lots located upon streets many hundreds of feet away may properly be compared when they are similar in character and so situated as to be of like nature.

Store leases should be considered when business frontage is being appraised. Rents paid for locations upon streets devoted to commercial use are evidence of value placed upon the property in the neighborhood by merchants who conduct business in the area. In this connection the character of stores in the area must be considered in order to determine whether the property is devoted to its highest use and whether it is reasonable to expect future business development of a nature which will add value to the property in question.

A careful appraiser will consider the income from an improved property. In order to analyze income, it is necessary to determine whether the land is improved and utilized properly in comparison with other buildings within the district. If the appraiser is satisfied that the improvement is adequate then he should ascertain whether the management is competent and the property productive of the highest return possible.

A property should produce, when properly improved, at least six per cent upon the market value of the land and 8 per cent upon the building. If it does not do so, having made proper allowances for taxes, assessments, cost of upkeep and other items of maintenance expense, it is an indication that either the improvement is inadequate or that management is faulty. If the assumed market value is too high, such a study will readily show the error in the valuation arrived at.

Minor influences, such as traffic conditions, restrictions, transportation facilities and the like must be studied by the conscientious appraiser before reaching his valuation of any given tract of land. The general reputation of the district bears a pronounced relation to value. Particularly is this true in residential properties. Some streets are considered fashionable and lots located thereon attain higher value and bring better prices than they ordinarily would sell for in another district. In business areas certain districts bear the reputations of being cheap.

In analyzing transactions, forced sales, and those which are merely transfers within a family or personal group of investors, have little significance in fixing market value. Where a property is ''knocked down'' at sheriff's sale it is clear that so many elements of uncertainty enter into the transaction that it can not be considered a free sale occurring between a seller ready, willing and able to sell and a buyer ready, willing and able to buy, neither of whom are coerced into the transaction. Likewise transfers made through condemnation proceedings or under threat of condemnation are not adequate indications of value.

Since the advent of federal laws requiring the affixing of revenue stamps to deeds, it is relatively easy to ascertain the price paid for a property by examination of the stamps attached to the deed. One dollar in stamps is required for each one thousand dollars of consideration less the total sum of the encumbrances assumed. If a property sells for $100,000 and a $50,000 mortgage is assumed, the deed should have attached to it $50 in revenue stamps. Stamps in excess of the required amount sometimes are affixed in order to deceive anyone examining the deed as to the real consideration paid for the property. The penalty for affixing less than the required amount is so severe, that it may be assumed that few violations of the law in this respect occur. The reason for indicating a higher value than the actual one seems to be in order to facilitate future transfers at higher prices.

The ultimate factor in determining the value of a given piece of land is the seasoned judgment of the appraiser. His valuation is good or bad in proportion to his ability to exercise sound judgment in weighing the various factors of value which exist in land. No rigid rules can be laid down for the appraisal of land which will dispense with the sound individual judgment of the person making the valuation. Rules and methods can only be guides, sales can never be more than sign posts to mark the way towards a correct conclusion. Land valuation is not an exact science—it is a profession excelled in only after years of intensive study and wide experience.

CHAPTER 23.

DEPTH INFLUENCE UPON VALUES

Principles followed in ascertaining the value of business and commercial frontage—Running front foot and unit front foot methods—Various systems followed in different cities—Depth curves—Comparison of different systems for measuring the value of lots of varying depths.

Standards exist for the measurement of the value of all commodities. Cloth is measured by the yard, liquids by the gallon, grain by the bushel. Scales are necessary to determine the weight of products offered for sale in the market. So it is necessary in order to determine the market or sale value of land to adopt some scale or measure whereby to express in dollars what land is worth.

If a standard unit of area is not adopted in the measurement of land for the purpose of valuation, there can be no comparison of values in different sections of the same city or in different communities.

In determining the value of land in retail and commercial business districts, and frequently, in residential districts, the standard usually adopted is the "front foot." This is based upon the size of the parcel to be valued as it exists upon the abutting street frontage. In manufacturing districts, the "square foot" unit is most commonly used, this being an area of land one foot square.

The reason for the difference in methods or standards of comparison is predicated upon the relation of the depth of a parcel to its value. In retail and commercial districts, street frontage is primarily desired because it makes possible the window display necessary to attract passers by. In wholesale and manufacturing sections, frontage is desired only to gain access to the street for drayage purposes, to the railroad for shipping facilities and for light and air. Pedestrian traffic is of no benefit to a manufacturer and of slight value to the wholesaler except for advertising purposes. In fact crowds are usually disadvantageous to both because of the interference with trucking activities. On the other hand, the retail merchant thrives where pedestrian traffic is greatest, so values to him are best measured in reference to land fronting upon a thoroughfare.

The running front foot method is used when value is considered as so much per foot front without reference to depth of lot. For instance when a tract with a frontage of one hundred feet on a street sells for $100,000, its sale indicates a price paid of $1,000 per foot of frontage. This is what is known as the running front foot method and is used when depth is not considered as a factor in land valuation.

Trained students of land values observe what is termed the unit foot method in measuring values of land, especially when making comparisons of several tracts with varying depths. It is the practice to adopt, as a theoretical unit, a strip of land having a street frontage of one foot and extending back at right angles to the street to a depth equal to that of the customary lot in the city or district where the measure is to be applied. If no customary depth of lot exists, the best unit to adopt is a strip one foot wide and one hundred feet deep, without alley frontage. This is termed a "unit." Land values in all parts of the city are easily compared when reduced to such a basis.

In some cities units vary in depth for lands used for different purposes. Residential property usually carries a greater depth than business frontage, and where this is true, it is often advisable to apply a different unit to residential lots. Milwaukee uses different unit depth charts in valuing residential and business frontage for taxation purposes.

In establishing unit values, the first step is to determine the peak or point of maximum value in the city. This ascertained, then grading down from the peak, the unit values should be ascertained in other blocks until a minimum is fixed for the city. Actual sales, leases, rentals, traffic conditions and neighborhood opinion are factors determining such values and are used in ascertaining the proper prices to place on the property in a given area. Determining value is dependent upon judgment. Applying various rules will give the variation due to increased or diminished depth from the standard unit.

Many attempts have been made to accurately ascertain the relation of lot depth to value. It is evident that usually the deeper the lot the greater its worth. It is likewise clear that while the value increases with depth it does not increase in exact proportion thereto. Studies made in many cities in both Europe and America seem to prove that there is a mathematical relationship existing between the depth of a lot and its value. Therefore it seems possible to express this variation in percentages of the unit value. For instance, a lot 150 feet in depth is worth 15 per cent more in value than a lot of a depth of 100 feet according to John A. Zangerle's method based upon lots of 100 feet deep as a standard. These percentages are sometimes charted and plotted and called the depth curve of value.

The first depth curve in use was what is known as the 4-3-2-1 rule. This method divided the tract to be appraised into quarters, then to the first quarter running back from the street, 40 per cent of the value of the entire tract was given. To the second quarter back, 30 per cent, to the third quarter, 20 per cent and the last quarter received but 10 per cent of the entire value. Expressing this in a different manner, should the lot be 100 feet in depth, the first 25 feet would be worth 40 per cent of the whole, fifty feet 70 per cent, seventy-five feet, 90 per cent and one hundred feet, 100 per cent.

In Baltimore for many years appraisers used a rough and ready rule called by the late Alfred D. Bernard, the "one third front, two third rear rule." This gave the first third of the lot half of the entire value, the remaining two thirds carrying half of the value.

Judge Murray Hoffman of New York City is credited with having in 1866 established the first recognized rule for appraising lots of varying depths. In his opinion, the first fifty feet of a lot one hundred feet in depth was worth two thirds of the value of the entire lot. On this basis the first twenty-five feet of a lot one hundred feet in depth equalled 37½ per cent, the first half equalled 67 per cent, three quarters, 87½ per cent and one hundred feet equalled 100 per cent.

Henry Harmon Neill of the New York Evening Mail revised the Hoffman rule and what is known as the Hoffman-

Neill rule was evolved. This rule gave each foot of depth a definite percentage of value. His revision is still in use in New York City.

The late Alfred D. Bernard while working in Baltimore announced the Lindsey-Bernard rule for long and short lots using 150 feet as a depth basis. Soon afterwards came the New York suggestion of A. C. Pleydell and the Newark rule which was a modification of the old 4-3-2-1- method.

Writing in the 1911 edition of the diary of the Real Estate Board of Brokers of New York, William Davies tells how he developed his rule based upon the average of sales of 10,200 lots of varying depths. He devised a formula which led to the compilation of his scale of depth values. Since this was determined from transactions in New York governed by the same influences that were studied by Judge Hoffman, the ratios established are strikingly similar to his earlier efforts.

A scheme was devised for the purpose of determining the relative value of long and short lots by the late W. A. Somers of St. Paul for use in that city. Later this was used by Mr. Somers in Cleveland in connection with the revaluation of all land in that city for the purposes of taxation during the year 1910.

From it, however, John A. Zangerle of Cleveland developed a scientific method based upon studies made over a long period of time covering many thousands of transactions. This is known as the Cleveland or Zangerle Curve. It is in use in Cleveland, Columbus, Cincinnati, Detroit, Toronto, and many other cities.

A thoroughly scientific study of the principles governing the fixing of land values for the purposes of Taxation was made by Dr. Wilfred Isbell King, formerly of the University of Wisconsin. His studies were chiefly in Milwaukee, and he promulgated the King curve for residential lots.

Chicago tax appraisers follow a curve that is known as the Martin depth curve. It is based on a unit depth of one hundred feet as a standard. Over the unit depth the variation from the Hoffman or the Zangerle rule is very marked. For illustration:

Ft.	Hoffman-Neill	Zangerle	Martin
25	44	47.9	34.35
50	67	72.5	57.50
75	84	88.3	79.35
100	100	100.	100.
125	112	109.05	119.35
150	118	115.	137.5
175	122	119.14	154.35
200	125	122.	170.

Only a few of the scales go beyond a 200 foot depth. This is due probably to the influence exerted upon the designers of the scales by local conditions in the cities where they worked. The Cleveland or Zangerle Curve is extended to measure depths up to 700 feet. According to this system a lot 700 feet deep bears an additional value of 42.35 per cent over the standard of 100 feet.

There are only two rules based upon a depth unit other than one hundred feet. Both of these use 150 feet as a typical lot depth. The Lindsey-Bernard rule was devised to meet conditions in Baltimore, and the Pleydell rule or New York suggestion was a product of New York environment.

A further study of the relative value of lots according to their depth suggests the following average of ten suggestions and is based upon a standard unit of 100 feet.

Depth in feet	New McMichael—Bingham Average
5	15.28
10	25.13
15	30.36
20	36.95
25	42.67
30	48.28
40	58.11
50	66.99
60	74.97
70	82.24
80	88.76
90	94.55
100	100.00
110	105.20
120	110.20
125	112.56
150	123.73
175	131.44
200	139.04

NOTE—Appraisal tables may be found in Addenda.

All rules cannot be correct. Where low priced lots are concerned the difference between the values involved is slight. The opposite is true, however, where tracts of land are high priced.

No rule has yet been devised, and probably no rule can be developed which will have the exactness of scientific precision. Rules governing long and short lots should be applied and considered as an intelligent guide in crystallizing the judgment of the appraiser in determining values.

With the growth of values in real estate and the development of small chain store units utilizing storage warehouses away from high priced districts, the depth required for small store units has been decreased. Where formerly, 75 to 100 feet was the minimum economic depth for a store room, now some small store keepers can utilize from 50 to 75 feet in depth and they often dislike to pay additional rental for stores of greater depth. This may tend to some extent to influence the depth rule so that a standard unit of less than 100 feet may find favor in some cities.

Use of any given rule universally throughout a city will tend to so influence transactions that prices paid for business tracts will be regulated by the rule. The Cleveland standard is very generally understood and applied in that city by real estate men and owners and a tendency is now noted to follow in fixing the prices at which business frontage of varying depths is sold.

The application of depth rules are relatively simple. Assume a lot on a street, with a depth of one hundred feet, the value of which is known. Presume that the problem is to find the value of 70 feet adjoining. The unit lot is worth $10,000 a front foot (1 x 100) the next lot which is only 70 feet deep is worth the following sums according to the different rules.

Depth	H-N Rule	Cleveland	Davies	Martins	McMichael Bingham average
70	$8100	$8560	$8060	$7510	$8224

A lot having a depth of 60 feet has a value which is known. The problem is to find the value of the next 125 feet adjoining.

Using the so-called average rule proceed as follows—the 60-foot lot having a front foot value of $6000 a foot (1 x 60).

Divide $6000 by the percentage that 60 bears to the unit which by the McMichael-Bingham Average is 74.97.

```
74.97) 6000.00 (8003—
       5997 6
       ------
         24000
         22491
         -----
          15090
```

If a lot sixty feet deep is worth $6000 a unit foot then a lot 100 feet deep would be worth $8003 a front foot, using that table. To find the value of a 125 foot lot adjoining, multiply the value per foot front ascertained for the lot projected to a depth of 100 feet by the percentage for 125 foot depth, which is 112.56 per cent. $8003 x 112.56 per cent=$9008.20.

Rear streets and alleys cause complications in the use of the long and short lot rule. Where the unit lot extends to such a street or alley in the rear, before comparing the lot with another lot without a rear outlet, the appraiser must determine how much of the value of the unit attaches to the alley.

One method is to take the value of the alley as an inside lot facing the two cross streets and pro rate it against each of the lots. For example, if an alley 20 feet wide connecting two streets extends a distance of 300 feet between two cross streets and the unit for the cross streets is $100 per foot, the alley would be worth as an inside lot on the two cross streets $4000. On each side of the alley there is alley frontage of 300 feet or a total of 600 feet which divided into the value would give $6.66 per foot value to each foot.

The theory behind this rule is that by contributing 10 feet of land each owner of the two main streets gets the use of 20 feet, that the 20 feet is more valuable in common than two 10-foot alleys side by side with a fence between, thus making the contributor of ten feet of depth of a lot a user of 20 feet. This principle was established by a Baltimore judge.

The Cleveland method adds one half of the width of the alley to the lot, either as an addition to its width if the alley abuts the lot on one side, or to its depth if the alley is in the rear. This method treats the alley as additional frontage or additional depth according to where it is situated. An objection to the Cleveland method is noted by Dr. King who believes that this method ascribes a much greater value to an alley located thirty feet from a street than it would to the same size alley located one hundred feet from the street, without commensurately benefitting the lot. To a lot one hundred feet deep a rear alley is of great importance, whereas it is doubtful whether it adds much to a lot of thirty foot depth. A simple method of calculating alley influence is to add a fixed percentage to the depth factor whenever an alley of a given width is present. This is objectionable because it fails to take into consideration the increasing value of the alley as the lot becomes deeper.

The King method of determining alley influence adds a percentage to the front foot value varying with the character of the alley, giving more value to paved than to unpaved alleys. The King scale is applicable to side as well as rear alleys.

When a lot extends through from one street to another and one street has a higher unit value than the other, the appraiser must merge the value, by finding the point in the total depth where the value of a foot will be about the same whether figured at the high or low unit. This is ascertained by adding together the high and low units and apportioning to each street the proportion of lot depth established by the relation of the street unit to the total obtained by the addition. Thus A street has a unit value of $4,000 a foot, while B street is worth $2,000 a foot. A lot extends 300 feet from one street to the other. To ascertain what portion of the lot should bear the high unit add 4000 to 2000 equaling 6000: 4000 is to 6000 as 2 is to 3, therefore, two-thirds of the depth should attach to the lot on A street which has a value of $4,000 a foot and the remaining one third to lot on B street so that the measurement would be as follows:

A Street Lot depth 200 feet—unit $4000
B Street Lot depth 100 feet—unit $2000

Then proceed to find the value of the added depth by using the depth curve tables.

The value of a residential lot is related to its depth but not for the same reasons that govern in the case of retail districts. Traffic in residential districts is considered a detriment rather than a benefit. Street set back lines are adopted for the location of houses and the space between the street and the building line is reserved for lawns. A lot for residential use increases rapidly in value as the lot grows deeper until a sufficient depth is attained to accommodate a house suitable to the location.

Special depth curves for residential districts have been worked out for use in cities such as Milwaukee but most appraisers use the standard business depth curve generally in use in the city where they are located.

Professor King sets forth several depth curves for residential lots all of which are used in Milwaukee. The following indicates percentages adopted:

Depth	Milwaukee Curve	Janssens	Kings
25	35	30	
40	50	45	45.4
50	60	52	57.3
60	67	59	66.8
75	78	71	78
100	92	88	91.4
110	97	94	95.9
120	100	100	100
125	101	102	101.9
150	105	112	110.5
175	107	119.5	
200	110	127.5	

Individual desirability enters so much into the value of residential lots that the appraisal of such property is largely a matter of an appraiser's judgment and is difficult to standardize according to any fixed rule.

CHAPTER 24.

CORNERS AND THEIR INFLUENCE ON VALUES

Lots located at the intersection of two streets are more valuable than inside lots—Corner lots in residential sections are of little if any greater value than inside lots—Reasons for the difference—Various methods used in valuing corner lots—The Baltimore Rule—The Jersey City Method—The Pleydell Rule—The Zangerle Rule—Irregularly shaped lots—Methods for working out a corner table for a city.

Streets at their intersections form corner lots which become increasingly desirable for business use as districts build up intensively. Lots so situated have the benefit of permanent and unobstructed light and air due to double street frontage and have the further advantage of access from two sides. Corner lots situated upon traffic streets in business sections are of far greater value for stores and shops requiring frontage for display purposes than are inside lots.

In residential sections corner lots possess little if any greater value than interior lots. The additional expense of carrying corner lots due to higher taxes and increased assessments for maintaining street paving on two streets are usually considered as burdens offsetting the advantages accruing by reason of prominence of location. As land becomes scarce and a residential district changes into a section where terraces and apartments replace detached houses, the difference between corner and inside lot values increase, and higher prices are paid for corners available for multiple dwellings than can be obtained for inside lots. Such use is semi-business in character as distinguished from strictly private and the rule applicable to business frontage on corners applies to a more or less limited degree.

Builders seeking locations for apartments and other multiple dwellings constructed for the purpose of accommodating many families and producing revenues from rentals charged, are able to better utilize corners for such purposes than inside parcels, and buildings so located bring higher rentals, thus adding value to the location for the same fundamental reasons and upon the same principles that govern values in business areas.

Building code requirements limit the utilization of interior lots in such a way as to provide adequately for light and air. Corner lots can be more fully utilized and the buildings erected thereon cover more ground and furnish a far greater proportion of net accommodation in relation to the size of the lot than do inside lots.

Factors which cause corner lots in business districts to have added value over inside lots are summarized as follows:

1—Accessibility from two streets.

2—Increased pedestrian traffic passing by.

3—Additional light and air free from actual or threatened obstruction due to erection of buildings upon adjoining lots.

4—Greater proportion of lot available for building construction.

5—Prominence of location.

6—Added facilities for advertising due to double frontage.

No subject connected with the appraisal of real estate is so undeveloped as the relation in value existing between corner and inside lots. Some real estate experts add a flat percentage to the value of the corner lot figured as an inside lot upon the street of highest value to express their opinion of the enhanced value due to corner location. These estimates range from twenty per cent to a full one hundred per cent.

In Baltimore for years corners have been figured as two lots, one fronting on each street. By this method the lot is assumed to front on the higher valued street, whether the lot actually faces it or sides on it; its value as an inside lot on the higher valued street is ascertained; to this is added its value considered as an inside lot on the side street, the sum being the minimum value for the corner. For instance a corner lot has dimensions 100 ft. on Broad Street and 100 ft. on Narrow Street. Broad Street is valued at $500 a foot. Narrow Street at $200 a foot. Compute value on Broad Street 100 x 500=$50,000. Add value on Narrow Street 100 x 200=$20,000—Total $70,000.

Jersey City tax appraisers add 33 1/3 per cent to the value of a corner considered as an inside lot in order to obtain its value. The Pleydell rule for valuing corners is as follows: add

15 per cent to the value of the lot as an inside lot on the higher valued street, then add 50 per cent of the value of the side street unit produced on the Newark rule. Thus for a lot 50 x 100, where the main street and side street units are $100 each, 50 x 100 equals $5000, add 15 per cent or $750; add 50 per cent of the side unit produced for a lot 50 feet deep which is 74 per cent of $5000=$3700; added to the main value gives $9450 for the lot. This would represent an increase of value of a corner lot of this size over an inside lot of the same dimensions of 89 per cent. If the lot were square fronting 100 feet on each street with units equal on each street the increased value would be 65 per cent by this method.

The Somers rule increases corners over inside lots 190 per cent where the frontage on the main street is fifty feet and the depth is one hundred feet, and the unit values on each street are equal. Where the frontage and sideage are each 100 feet and of equal value, the increase by this rule is 50 per cent over inside lot value.

John A. Zangerle of Cleveland has evolved a rule which for corner lots 50 x 100 in size, with equal unit values for each street increases the value of a corner over an inside lot 126 per cent and where the lot is square with sides each 100 feet and of equal value the increased value is 72 per cent. Inside lots are considered at 100 per cent for purposes of comparison. This method is based upon the principle that corner lots possess additional value over inside lots depending on their depth, their width and the relative value of the side street. He assumes that corner influence extends to a depth of 100 feet on the side street.

The Zangerle table for corner lot influence is given below—

(For depth of side street which is the frontage on the main street).

Feet	Percentage	Feet	Percentage
5	15	55	64.5
10	25	60	66
15	33	65	67
20	40	70	68
25	46	75	69
30	51	80	70
35	55	85	70.5
40	58	90	71
45	60.5	95	71.5
50	63	100	72

In figuring a corner lot 100 x 100 in size, the method considers the value as the sum of two separate lots, one fronting on the main street and the other on the side street. Thus the frontage of one lot becomes the depth of the other. The main street lot is figured as an inside lot of a frontage of 100 feet and a depth of 100 feet by using the Zangerle table which gives a 100 per cent value to lots of 100 feet in depth. The side street lot however will receive only 72 per cent for its full depth of 100 feet. In case the side street lot is less than 100 feet in depth the percentages given in the table above are taken.

Example—Main street unit $1000 per foot; Side street unit $500 per foot; lot size, 50 x 100.

Main street 50 x 100 per cent (100 feet in depth) x $1000=$50,000. Side street 100 x 63 per cent (50 feet in depth) x $500 =$31,500. Total lot value, $81,500.

If a lot is more than 100 feet deep from the front or high valued street, find the value at the high unit for 100 feet deep only and then find the value of the rear excess as though it faced as an inside lot upon the low valued or side street only.

At what point residential property becomes business frontage for the purpose of adding value to corner lots is difficult to determine. Should store buildings exceed in number the dwellings upon any street, then the corners should be given value as business corners. All corners with street railway intersections, are potentially business corners and should be valued as such providing the unit values for inside lots upon the cross streets exceed $100 a front foot.

The appraiser faces difficulty when forced to value irregular shaped lots. The methods adopted by various authorities differ widely. Some observe a system whereby the lot is divided into sections as nearly rectangular or triangular in shape as possible. Each section is separately appraised using the unit value for the street and applying depth tables to ascertain values of tracts of varying size. Wherever it is impracticable to use such a method then the zone method is frequently adopted. Computations are made in order to ascertain the value of each zone and the total of the zone-values form the plot value.

In working out a corner influence table for any city traffic counts should be taken in order to ascertain the number of pedestrians passing on each street at stations regularly spaced for a distance of at least two hundred feet from the street intersection. From such a study it will be noted that at each station farther distant from the corner intersection the number of pedestrians will decrease until a minimum will be reached at the last station and farthest from the intersection. The percentage of deflection of traffic at each point may be determined by comparing the traffic at the lowest point with the traffic at each station approaching the corner intersection. By making a number of such tests at different locations and averaging results, an approximation to the normal percentage of street traffic deflected to different distances along cross streets may be obtained.

AMERICA'S FINEST RAILROAD TERMINAL

The splendid concourse in the Union Station at Washington D. C. is 130 feet wide and 760 feet long, containing 2.27 acres of space. It is really a union station, as all railroads entering Washington use it. It is considered one of the architectural gems of the national capital.

A study of rental values for stores located at different distances from street intersections will also indicate the ratio of increase which corners should bear over inside lots. To use the method just suggested the store rentals studied must be reduced to a common factor of depth before comparison is made and the leases considered must correspond approximately in time. A study of sales made upon corner lots as compared with adjacent inside lots is another method of determining the relative value of corners and inside lots.

Whatever the method used in computing corner influence, no system should be set up without a careful check of a great number of cases, sufficient to obtain a fair average. Two or three examples will not establish a rule which would deserve consideration. Perhaps as many as several hundred instances should be studied and compared.

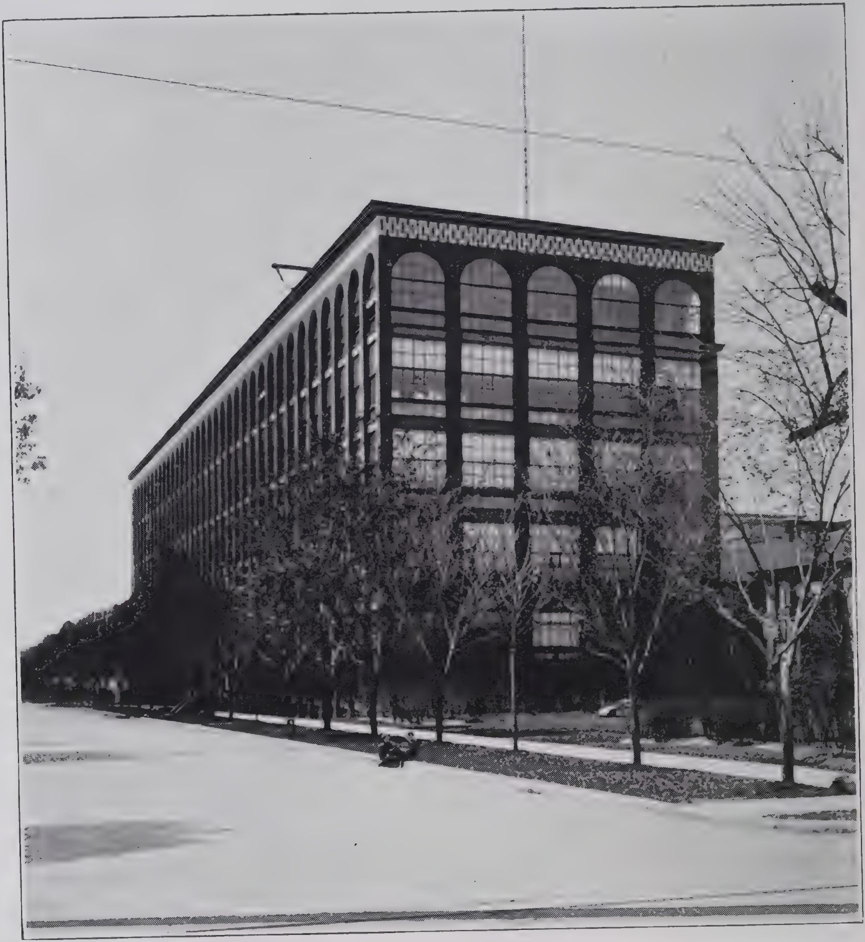
Occasionally plots of land are formed triangular in shape by the intersection of streets at an acute angle. Such tracts are called flatiron properties. Operators will pay high prices for tracts so situated on business streets. The point stores are rented to good advantage to drug and cigar concerns and other small businesses that require prominent locations and for such purposes these locations bring excellent returns. Such properties often present problems in building construction which materially detract from their values, especially where the tract has a shallow depth at its base.

The appraiser computing the value of such locations must usually cast aside mathematical rules and rely upon income and rentals to assist him in obtaining a valuation which will correctly measure the worth of the land.

In general while it has been said previously that the common sense and sound judgment of the appraiser must prevail in making land valuations, particularly it is true when corners and irregularly shaped parcels of land are to be valued. Methods so far devised for the valuation of such tracts are at best mere guide posts. It is submitted that in such cases the appraiser should give great importance to comparative sales of tracts of similar shape and in locations which may be fairly compared, and income analysis should be resorted to in order to check and verify results obtained.

A city that has been carefully platted will have many intersecting streets providing advantageous locations in business districts for merchants. Because of the advantages accruing to a corner location retail establishments are attracted to such sites and merchants are induced to build structures which in character will tend to enhance values in the district where they are located.

Some cities have been retarded in their growth by improper platting where streets are too narrow and distances between streets are too great, providing few corners for retail development. The reflex upon the progress of the city from such a condition is marked.



AMERICA'S FIRST "DAYLIGHT" FACTORY BUILDING

In 1896, The National Cash Register Co. erected this "daylight" factory building in Dayton. Disregarding protests from architects that it was impossible to build a factory with so much glass, it was erected nevertheless, and stands today as a monument to modern factory construction. Buildings of this type are now common, and have done much to speed up production, at the same time providing comforts for workers.

CHAPTER 25.

MANUFACTURING AREAS

Industry requires large areas in which to operate—Some cities specialize in a single industry—Factories often seek cheap land in the suburbs—Workmen enjoy proximity of recreational facilities—Machine manufacturing has added to the growth of cities—Sites selected with reference to location and labor supply—Convenient housing facilities are necessary—Workmen like to live within a half hour traveling distance of their employment—Belt lines link railroads of a city for transfer of freight—Water front location benefit through cheap lake shipping facilities—Room for expansion desirable.

Manufacturing enterprises require large areas of building space, well lighted, readily accessible to railroads and within easy walking or riding distance of residential districts of a character to house workingmen and their families at moderate cost. Since industries require sizable areas in order to carry on the processes of manufacture, it is necessary that the land occupied should be relatively low priced, in order to reduce manufacturing costs to a minimum to meet competition. Where land is sufficiently cheap, factories are constructed to occupy ground floor space rather than buildings several stories in height.

Most heavy manufacturing, such as foundries, steel mills, bridge works, car shops, and machine shops, require ground floor space and large areas must be acquired in order to accommodate such businesses. Heavy and ponderous machinery and furnaces must be located upon substantial foundations. Because of the size of the products manufactured much space is necessary for the storage of materials used by a plant. Such industries cannot occupy high priced land, on account of the prohibitive cost.

Light manufacturing can be carried on successfully with less ground floor area and therefore many such enterprises occupy buildings of several stories, covering relatively little ground floor area. Such industries do not usually require large and heavy machinery, the articles are stored in smaller space and the materials required are usually not so bulky. Therefore, higher valued land may be utilized profitably if in the particular case it has commensurate advantages of good labor supply and transportation facilities.

Successful manufacturing in addition to competent and able management, involves

1—Economic assembling of materials.

2—Available labor supply.

3—Power facilities at reasonable cost.

4—An adequate supply of capital and credit.

5—Cheap land in large quantities with fairly level contour and advantageous soil conditions, located near good water supply.

6—Good transportation facilities for the receipt of raw materials and the distribution of finished products.

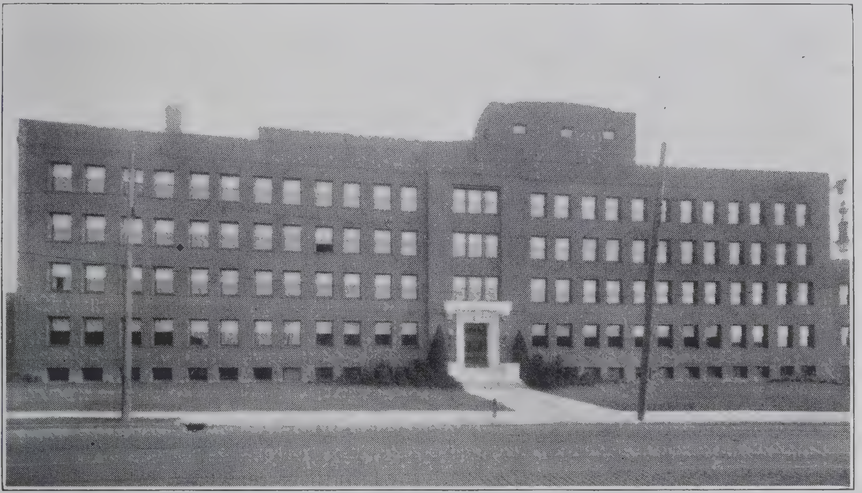
Cities able to furnish advantages over other communities in the requirements of industries naturally develop as industrial centers in proportion to the number and extent of the favorable facilities furnished.

Some cities, it is true, have become prominent as centers for certain industries although deficient in certain of the facilities usually desired. Tradition or the fact of an early start in some particular industry which has trained workmen has contributed to the importance of many cities otherwise lacking the natural advantages which would normally control the location of industries. Examples of such cities are Akron, with its rubber industry developed because of an early start, and Grand Rapids, with its furniture factories, originally well located with reference to lumber supply but now retaining its prominence because of tradition, its early start and its specialized labor supply.

As a general rule, the more advantages a city possesses of those outlined above, the greater will be its chance for growth along industrial lines, other things being equal.

There is a well defined tendency to locate new industries outside the corporate limits of cities because of cheaper land and lower taxes. Occasionally factories seek plant sites in adjacent and neighboring towns sufficiently close to the city to have the advantage of labor supply and the distribution facilities afforded by the city and still able to enjoy cheap land and low taxes. Better housing for workmen at less cost is an added advantage of the nearby town which often influences manufacturers to seek it as a plant site.

Occasionally the competition of shops located in the city will spell disaster to the industry located in the smaller town. In certain industries the class of workmen employed seem to prefer life in a city to living in a smaller town. When this is true it is difficult to induce workers during normal times to leave the city with its intensive life, replete with amusements, moving picture shows and fascinating noise and bustle. The element of available labor supply in ample quantity is quite as important as cheap land and must be carefully considered by the plant manager.



A FACTORY THAT IS DIFFERENT

Yes, this is a factory, despite the fact that it lays some claim to architectural merit and has an attractively planted lawn in front. The building is set back from the street line for a number of feet, lending an air that denominates it as being the home of successful businessmen who do not find it necessary to work amid ugly surroundings.

Sometimes cities have local or regional advantages which outweigh their deficiencies and cause the location of great industries. Pittsburgh has become a great steel center in spite of high hills and adverse topographical conditions. San Francisco is badly located with reference to rail transportation facilities but has become important industrially because of its location on the Pacific Coast midway between the extreme boundaries of the coast states. New Orleans is low lying, damp and marshy but has important industries.

Although most cities had their origin as trading posts supplying the populations of surrounding territories with necessities, since the advent of power machinery the growth of cities has been largely dependent upon manufacturing industries. In so far as numbers of people contribute to the magnitude and greatness of a city, machine manufacturing rather than commerce is responsible for the rapid growth of urban population during the past fifty years. Before the advent of the steam engine, which brought about what is known as the Industrial Era in world history, a small percentage of the total population of civilized countries lived in cities. Today in the United States alone more than fifty per cent of the nation's people live in towns and cities.

Huge factories employing thousands of men have caused Detroit to rise in population from 285,704 in 1900 to over 925,000 in 1920. The growth of Akron has been similar. The Ford Motor Co. alone employs over thirty thousand Detroit workmen in its factories and other Detroit automobile industries contribute many thousands to the city's population.

Sites for industrial enterprises are selected with reference to location and area. In locating a factory consideration must be given to topographical conditions, railroad facilities, available labor supply and requirements of the particular enterprise as to area.

The site should be easily accessible to the particular kind of labor used in the industry. It would be foolish to select as a site for a steel mill, acreage adjacent to the high grade residential district. The executives might be accommodated but the day laborers necessary to the industry would not be available. Therefore the location should be as close as possible to the district in which is located the home of the workingmen who will be employed in the particular industry.

Surveys made by factory managers indicate that the average workman seeks employment within not more than thirty to forty minutes travel from his home. The time consumed in going greater distances is a natural deterrent and causes the worker to seek employment closer to his home. He prefers to walk to work when possible to do so within fifteen to twenty minutes so as to reduce his expense. It is true, however, that today many workmen are driving motor cars to their shops and many large plants now provide parking space for employees' machines.

Land of level contour is best adaptable for factory sites although foundries and steel mills often select locations near ravines in order to obtain dumping space for slag and other refuse. Low lands are frequently selected where rail facilities for shipping are adequate. Many enterprising plant managers are selecting locations on land lower in level than the abutting railroad tracks so as to provide switching facilities with gravity dumping delivery systems for fuel and bulky raw materials such as lumber, sand and other building supplies. Such locations however are not advantageous to the manufacturing plant that ships its finished product by rail, for loading is difficult.

Railroad trackage is important to most industries therefore locations affording switching facilities are most desired. It is not necessary that the switch parallel the main tracks for a greater distance than enough to afford proper spur connection. From fifty to one hundred feet is usually sufficient to provide a spur connection, the switch proper running within the plant yard.

Where more than one railroad serves the city, a choice is afforded to the manufacturer in selecting his rail location. Industries requiring large supplies of coal, iron ore or bulky materials locate along railroads tapping districts where the supply is obtained. Where shipping facilities are primarily important, the location adjacent to the railroad having direct lines to principal markets is most desirable. In many large cities "belt lines" have been constructed, connecting all rail systems so that plants located upon any rail frontage have the benefit of direct connection with all other roads.

Industries not requiring rail facilities have greater freedom of choice in selecting plant sites. Where the article manufactured is marketed in the immediate locality motor trucks are depended upon to provide delivery facilities. Likewise where the products are shipped in small packages and less than car load lots, trucks are used for transporting goods to shipping stations of railroads, electric lines and steamships.

In ocean and lake cities industries requiring large supplies of raw materials such as ore, coal and sand find it profitable to seek water frontage with dock facilities so that shipments may be received by water at rates lower than charged for rail transportation.

Natural resources influence the location of some industries. A good water supply is necessary to the rubber industry, natural gas, where found, can be used for fuel in certain classes of manufacturing. Extractive industries usually seek locations closest to the source of supply of raw materials and are drawn to cities having such advantages to the particular industry.

Factories must be situated close to local street car lines so as to afford workers transportation to their homes. Pavements on streets leading to and abutting upon a plant site add value to its location and afford easier access for motor vehicles.

In the consideration of area requirements, the size of a tract is important. Unless the site is of such area as to provide room for expansion, it receives small attention from the far-seeing manufacturer. Usually industries prefer sites rectangular in shape, although irregular parcels may be excellent for particular purposes. A property may be so shaped that the installation of a switch divides it in such manner as to prevent the construction of an efficient plant. Street frontage affords the advantage of light and air and provides good advertising space, but increases taxes.

In many of the larger cities such as New York, Chicago and Detroit, great buildings have been constructed and dedicated to the use of small manufacturing concerns, requiring little space. These are known as power blocks. Such buildings are equipped with shafting, and other manufacturing necessities ready to attach to motors and machines. Elevator service is provided and also trackage facilities for loading cars for rail shipments. These are virtual industrial tenements.

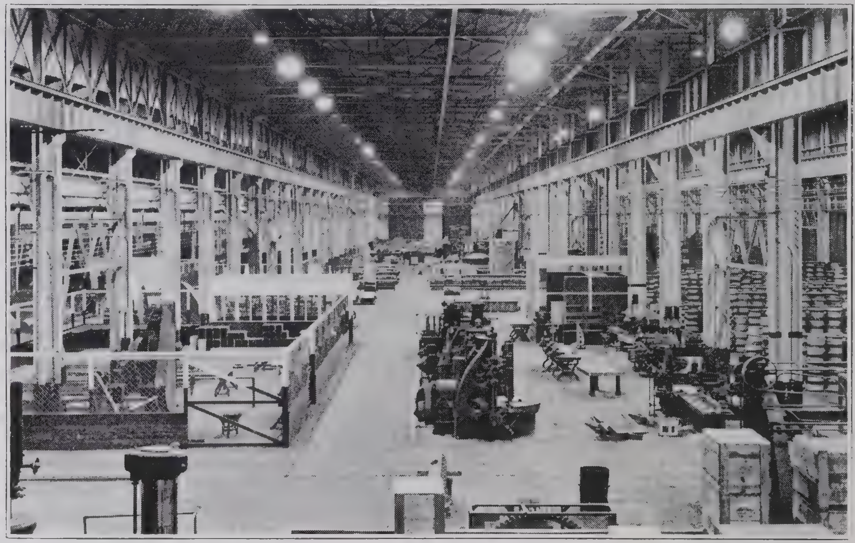
Industrial lands are usually valued upon either a square foot or an acreage basis, according to size and land value. Where land is worth less than $5000 an acre, the acreage basis is preferred. When over such a value, a square foot unit is generally adopted.

In many cities factory land is valued on a basis of units fixed for adjacent property not used for industrial purposes. Where a large factory is surrounded by workers' homes it is manifestly unfair to apply the same methods of fixing values to such dissimilar uses. Residential property usually is valued on the front foot method, industrial sites by the area rule. Area is important to factories, frontage to residential and business uses. No attempt should be made to seek uniformity in valuation between industrial lands and properties adjoining not industrial in character.

ATTRACTIVE HOME OF WHOLESALING FIRM

A wholesale plumbing establishment built and occupies this well designed structure indicating that good architecture is being applied to buildings housing all forms of business.

Pedestrian traffic detracts from the value of lands devoted to industrial uses, whereas retail business districts are benefited thereby. Loading, and unloading, of materials is hindered by crowds of pedestrians or heavy vehicular traffic. Therefore frontage upon a street is of comparatively small moment to a factory site. Depth adds greater value to a factory site relatively than street frontage. Alleys are important since they afford additional driveways and areas for loading operations.



PALACE OR FACTORY?

Medieval kings lived in dark, dingy "hovels" when compared to the bright, sanitary, and attractive "palaces" which some factory workers enjoy today. This is the interior of a factory unit of the General Electric Co.'s plant at Erie, Pa. Manufacturers have found that it pays to furnish light airy rooms for workers, with plenty of artificial illumination when necessary, and that production is increased thereby.

Factory buildings are now being designed and constructed so as to provide as much comfort to workers as it is possible to afford. Managers have come to recognize the importance to industrial efficiency of a contented and happy worker. Good lighting and white walls tend to decrease the frequency of accidents which cost heavily in men and money. Sanitary facilities are often provided equal, if not better, than many workers enjoy in their homes. Many factories furnish courses of study free of charge to employees designed to train men to carry on processes of manufacture more efficiently.

City builders fully appreciate the importance of industrial development to the growth of cities. A city that possesses a diversity of manufacturing enterprises enjoys better opportunity for a well balanced growth than a one type industry town. Industrial conditions depressing one line of endeavor are less likely to affect the progress of the city where the types of manufacturing enterprise are many and varied.

To properly balance city growth industrial areas should be planned by city builders along railroads in various parts of the city, thus affording a proper distribution of industries and enabling workers to find employment near their homes. Such a distribution of industries prevents street transportation congestion and contributes to the uniform growth of a city.

CHAPTER 26.

RESIDENTIAL AREAS

A city must have a variety of accommodations in the way of home sites—Restrictions advantageous to residential property—Elements which add value to such tracts—Influences which detract from value—Residential corners have little or no value over inside lots—Prices paid for residential sites vary from $10 to $1000 per foot front—Modern improvements cost from $15 to $25 per lineal foot—Alleys not favored in residential districts—Garages are often attached to dwellings and fences are barred—Houses should cost from three to four times the value of the lots on which they are located.

There must be a variety of types of home sections in a city to accommodate the different classes of residents. Districts must be provided to house the workers with small financial resources, as well as the wealthy who desire fine homes.

Half a century ago there was little attention paid by subdividers to the individual demands of each class of prospective home owners, and subdivisions were laid out in a more or less haphazard manner. Sizes of lots varied in the different properties placed upon the market, and many subdivisions had no building restrictions whatever to control the development of the area. Streets were laid out without reference to connections with streets in adjoining subdivisions—plats were poorly planned, and the method of marketing homes on the small down payment basis was not at that time conceived.

Much has been learned about building residential sections through experience of operators in real estate during the past twenty or thirty years. It has been found, for instance, that proper restrictions and careful supervision of the development of a subdivision is good business for the operator and the home builder alike, and contributes value to the section for residential use. The more rigid the restrictions the better the class of buyer attracted, the higher the price that can be obtained for each individual lot. Likewise in building a home, it is easy to recognize the fact that it costs just as much to build a house on a cheap lot as on one which costs more, but is better suited to the type of dwelling being constructed.

Residential properties are as distinct from business districts as are manufacturing areas when values and methods of valuation are concerned. What is desirable for the location of residences would be distinctly disadvantageous for the business of a merchant. Most persons seek homes in districts where nature affords some elements of natural beauty, or in areas which subdividers have laid out artistically. Ravines, brooks, lakes, trees, often hilly land, attract the home seeker. Business turns aside from or destroys such natural beauty spots, seeking level areas on which to build.

A NOVEL CAR TRACK "SCREEN"

Car tracks on wide boulevarded streets in residential neighborhoods, unless they are set off with smoothly cut lawns, often are far from being attractive. In Roland Park, Baltimore, privet hedges have been grown at each side of the right of way, effectually screening tracks from the view of home owners, whose properties border the thoroughfare.

Residential property is attractive and valuable because of the presence or absence of certain desirable or undesirable features. There are many classes of property, ranging from the highest to the lowest type of occupancy. Single residences are placed in the best location, although apartments which indicate an intensive residential use of land, not individual in character, are able to pay higher prices for, and earn profits upon, land in choice residential districts, if such use is permitted. In the larger cities, where zoning is becoming quite general, apartments and double houses are required to locate in districts assigned for such purposes. The presence of multiple dwellings, such as flats, terraces, apartments and double houses, destroy much of the privacy and beauty of a single family residential area, and decrease the desirability of a section for high class home development.

Among the desirable features of residential neighborhoods are:

1—Reputation as a high class and fashionable location for fine homes, where prominent citizens reside. High prices will be paid for homes or building sites in a neighborhood considered fashionable.

2—Effective building restrictions, such as set back lines for houses, restrictions limiting construction to single family houses of a certain minimum cost.

3—The absence of nuisances, such as proximity to railroads, factories, cheap stores, and similar uses, which are out of harmony with the character of the district, and which are considered distasteful to those who wish to live in a high class neighborhood.

4—Sites having moderate elevation, affording good drainage at all seasons of the year, and often furnishing attractive views from front windows and porches. Hilly sections about cities, which roll back to plateaus, develop into more or less exclusive residential sections, and attract the attention of the experienced subdivider. Adequate transportation service must ordinarily be provided, although in these days of the automobile it sometimes happens that districts of this class develop without adequate car service. It has been found, however, that it is very difficult to retain domestics for housework in districts where transportation facilities are limited.

5—Areas near attractive lakes, rivers, or golf courses usually are desirable for residential use, if they have been properly restricted. The fine homes about the attractive lakes in Minneapolis are examples. Riverside Drive, New York, is an example of a district where the wealthy classes reside, and pay high rentals for apartments overlooking the Hudson River.

6—Good transportation facilities always prove of benefit to a residential area, and assist in creating and maintaining values. Long tiresome walks to street cars many blocks away soon discourage a home owner, and often compel him to move to another section of the city, where better car service is afforded. In the better sections of a city, the car fare charged has ordinarily little to do with the desirability of home sites, provided comfortable and adequate service is furnished.

YES, IT'S THE CORNER GROCERY!

The problem of fitting a business section into a high grade residential park has been successfully solved in Roland Park, Baltimore, where the business structure pictured above, containing a number of small shops cares for the business needs of a relatively large neighborhood.

7—The presence of all forms of public service has much to do with the desirability of a district, and reflects itself in prices obtained for homesites. Water, pavements, sanitary sewers, and electricity are, of course, almost imperative requirements of a middle or high grade neighborhood. Gas, whether artificial or natural, is also a desirable boon. Many a neighborhood which lacks gas is banned by the discriminating home seeker.

8—Reasonable proximity to schools and small shops, where neighborhood shopping may be done, is also desirable. If the children of the family have to walk long distances in bad weather, it soon compels the parents to move to a neighborhood where schools are more conveniently located. If supplies run low, and it is necessary to walk ten or fifteen blocks to get a loaf of bread, the decision to get nearer to the places which vend the necessities of life may result. The distance from churches is also an element which attracts or repels certain persons to a given district.

There are certain elements which have a detrimental influence on the desirability and value of residential areas. Among these may be noted:

1—The presence of factories in a neighborhood. This is found frequently in the older portions of a city where business has pressed out from a small beginning, until a considerable area is being used for manufacturing purposes, driving out home owners. Nothing detracts from a high grade residential property so much as a factory built nearby. Immediately there begins an exodus of those who resent the intrusion, and who are able to buy elsewhere. Land values depreciate for a time until the value of the houses is absorbed, after which the ground may increase in value for business use.

2—Tenements and apartment houses, creeping into fine residential streets, where expensive detached homes have been built, soon cause a diminution in value. Many of the fine old neighborhoods in the larger cities, located near main transportation arteries, gradually change from residential to apartment house development. Building values in homes are destroyed, but land eventually increases in value because of its new semi-business use. The apartment house, using land intensively, is able to earn profits at higher values than the home owner can afford to pay.

3—Noisy street traffic is an element which is distinctly undesirable in a residential district. Most cities have ordinances prohibiting street crying by hawkers of vegetables and other commodities, but it is difficult to prevent the tooting of auto horns, the grinding of brakes, or the rumbling of fast moving trucks. Street cars upon a street devoted to fine homes detract from its desirability for residential use, and, unless in a restricted home area, quickly force the property fronting upon the street into business use.

4—Attractive residential streets have been ruined by the building of a store, garage or other business building in close proximity to rows of homes. Such uses are out of harmony with the character of a residential section.

5—Marshy and wet land detracts from the desirability and value of residential land for obvious reasons. Duck ponds may be fine for little Willie to sail a boat on, but they furnish a poor vista from a dining room or living room window of a nice home.

6—Unsightly approaches to a neighborhood which otherwise has many attractions have a definite effect on its desirability and value. In many cities it is necessary to pass through a manufacturing district before reaching a home section. This is offensive to many persons who prefer living where they can go from the business district to their homes without having to pass rows of ugly factories.

7—The limited size of an area planned for high class residential use sometimes prevents its success because of the fear of the prospective home dweller that proximity to districts unrestricted will cause decrease in land values when business usurps the adjoining areas.

8—Poorly paved streets, and rough, uneven sidewalks, will sometimes condemn an otherwise attractive neighborhood.

Corner lots are not considered desirable for residential purposes by the man of average means. Retail stores desire frontage upon intersecting streets because of the greater traffic, additional frontage for display space, and light and air. Corners to homeowners mean only added taxes, and snow shoveling. Most tax appraisers recognize this distinction, and give corners in residential districts no added value over inside lots.

Lots in subdivisions for residential purposes vary greatly in size, depth, shape, topography and surface conditions. In most cities 35 to 60 feet is now considered a proper width for a lot upon which a single house may be erected, although many subdividers plat larger lots. In years long past, homes were built upon lots as narrow as 20 feet, buildings occupying the lot out to the sidewalk line. Such lots were of sufficient depth to provide for a yard or court in the rear, where cultivation of flowers and vegetables was frequently undertaken. Baltimore and Cincinnati have many such old houses, either single or in rows.

There is no standard depth which can be adopted for residential lots. Today lots are seldom less than 100 feet in depth, ranging to as high as 300 feet deep. A standard size is one foot of frontage to each three feet of depth. Lots 50 x 150 feet in size fulfill this requirement.

Street layouts made in recent years are irregular in the best grade of residential areas. Such street lines make lots somewhat irregular in shape and plottage. Though sometimes difficult to develop, owners usually consider irregular tracts more desirable when the size is sufficient to permit the erection of a house containing a floor area of not less than 1200 square feet.

Appraisers value residential lots usually by the front foot method, giving little or no additional value for corners and depth greater than one hundred and twenty feet. Restrictions upon use add worth to lots in subdivisions, and have great influence in determining the value of the lot for sale to a home builder.

Prices paid for residential lots in cities range from $10 a foot front in the rough ungraded, unpaved and unimproved subdivisions, to as high as $500 or $1000 a foot for desirable locations in highly fashionable neighborhoods. In most cities the cost of installing the ordinary improvements, such as water, sewer, and pavement, cost from $15 to $25 per lineal foot, which, of course, must be added to the value of the raw land, together with the expense of selling and the profit of the subdivider.

Alleys in residential neighborhoods, while affording access to the rear of lots, are not favored by high grade subdividers who claim it is a useless waste of land and furnishes a place which may become cluttered with ash cans and all sorts of rubbish. The practice is also general in the newer and better class subdivisions of permitting only low wire fences or attractive hedges in the place of high board fences, such as were common a generation ago. In many developments, it is stipulated that garages must be attached to dwellings, and no outhouses of any kind are allowed. This makes for the development of attractive rear yards, which are laid out in flower gardens or lawns.

In medium priced subdivisions, it is a recognized rule that houses should cost from three to four times the value of the lot, when this is of normal size. In sections where very high grade homes are erected, the ratio is often greater. although there is a modern tendency to surround very large homes with much larger areas of land than was the practice a few years ago.

A city poorly provided with attractive and conveniently located districts for the homes of its inhabitants is seriously handicapped, for new residents are not attracted. Good homes for citizens of all classes always benefits the community, affording comfort, health and happiness to its residents.

CHAPTER 27

INCOME ANALYSIS AS A BASIS FOR DETERMINING LAND VALUES

Investors acquire land for income, speculators buy for profit.—America a nation of speculators, England of investors.—Income used as final test of value in Europe.—Sales determine value in America.—"Years Purchase" defined.—Income analysis not final test of value of land unless land occupation solely on economic basis, being fully and adequately improved to best advantage.—Capitalization rates depend on current interest rate.—Income in relation to pedestrian traffic.

"The proper way to appraise land is to determine what its net earnings may be and then capitalize it at a reasonable return under all the circumstances. It might be 4 *per cent; it might be* 6 *per cent; it might be more, depending on the value of money."—Lawson Purdy.*

When an investor purchases a plot of ground, he thinks primarily of the income it will yield. A speculator buying real estate is actuated by the desire to make a profit from a resale at a higher price than he paid. One is seeking a fair return on his money invested, the other desires to benefit from the "unearned increment" arising from an increase in the value of the tract he purchases.

Every growing city has its quota of investors and speculators who exert an influence upon the rapidity with which a community expands.

Often the investor has a mixed motive in his real estate investment. He wants to realize a profit in addition to regular income. Likewise the speculator is not adverse to receiving a steady return on his money while he is waiting for the tide of increment to lift his land to such a value as will enable him to sell at a good profit.

An investor is willing to buy a building at a fair price and carry it so long as the rents received therefrom yield him a net return of from four to six per cent on his purchase price. A speculator wants action and expects quick turnovers. He will take a ramshackle building upon a street where increases are rapid, let it go unimproved and seek a purchaser who will pay him a quick profit.

America is a nation of speculators. All young nations are. The spirit which made our forefathers plunge into the wilderness of a new land seeking homes and adventure, leaving behind the comforts and friends of an old world, is still determining our business activities today.

That is the reason that income as a measure of land value has never been accepted in the United States as a final test. In Europe, for centuries, land has been appraised according to the yield it produces. The possession of land is desired because of the income from it. It is usual to calculate selling value in terms of present worth or ''years purchase'' as it is known in England. ''Years Purchase'' is simply the capitalization of the rent received from a tract of land upon a certain rate. For instance, with money worth five per cent a year, a twenty years purchase would mean that the selling value of the land would be twenty times as great as the rent for one year. Were money rates four per cent, the Englishman would speak of a twenty five years purchase. ''Years purchase'' is the converse of ''investment at per cent.'' An investor paying $100,000 for a property which can be rented for a net return of $5000 a year has invested his capital at 5 per cent or as the Briton would say, he has paid twenty years purchase for the property.

This method of valuing real estate is very useful in countries where conditions have brought about the stabilization of real property values and where speculation has been squeezed out. An economic basis of land occupation must have been attained before such means of determining land values can be the governing factor.

In newer nations where land is still subject to active speculation and values fluctuate rapidly, it is a surer and safer method in appraising land to compare sales as evidence of value, and such methods are adopted in the United States. Taxation of land in England is based upon the annual yield while in America taxes are levied on values determined from selling prices.

The theory of land values based upon actual yield has been partially recognized as a sound method of appraising land by recent legislation establishing the Federal Land Banks which require valuations for loans to be made upon that basis. The relation between rental value and selling value is not exact because future change in annual income must be taken into consideration.

In discussing the theory of land income as a basis of land values, it must be remembered that interest rates are always reflected in the selling value of land. The lower the rate of interest, the higher the selling price of land because future income will be discounted at a lower rate in estimating its present worth.

Another way of expressing the same thought is that land values are what is left after all other charges are paid. By way of illustration suppose a given property yields a gross return of $10,000 per year. Taxes amount to $2500. Insurance, repairs, expense of maintenance and operation, depreciation and all other items aggregate $1500 and the building upon the land being worth, let us say, $25,000, deduct six per cent upon the investment in bricks and mortar which equals another $1500. These items total $5500 per year. The residue is $4500 per year which can be termed rent for the land only on a net basis. Capitalize at the current interest rates in order to ascertain land value and the results show the following:

On a 4 per cent basis—— $112,500.
5 per cent basis—— 90,000.
6 per cent basis—— 75,000.
7 per cent basis—— 64,286.

There are many considerations which influence the accuracy of valuations determined by income. If a site is adequately and properly improved and efficiently managed the rental obtained is almost an infallible guide to its full value unless the building is of unusual character constructed for a special purpose or happens to be a very costly dwelling house. In case of ordinary buildings erected for the purpose of earning revenue, the net rental after deducting taxes, expenses and interest upon the investment in the building, at its true worth and not on a cost basis, is a reasonably safe guide to arrive at a valuation of the land.

Ground rent may be defined as the residuum after deducting from gross rents all operating charges, taxes, insurance, repairs, expenses of management and interest on the capital invested in the building. This is sometimes called economic rent. Ground rent is really the premium paid solely for location and rents are based upon utility.

The home owner pays rent for his land just as certainly as a tenant in a business block, for the home owner should set up in his calculations a charge which he pays upon the amount he has invested in his home. Rent is the money measure of the utility of land and varies according to its utility and scarcity.

Capitalization rates vary with current securities and the prevailing interest rates for use of money. Before the Great War government bonds yielded a return of 2 per cent, railroad bonds and municipal and state obligations were sold to return from 3 to 5 per cent and industrial bonds on a 6 per cent basis. Since the economic upset due to the war government securities range in return from 3 to 5 per cent and municipal bonds from 4 to 6 per cent or even 7 per cent. Industrial bonds have sold as high as 8 per cent and real estate bonds on a basis of from 6 to 8 per cent. Some bonds, less secure in character produce yields upon the market price in excess of 8 per cent and many stocks yield from 8 to 12 per cent. Interest rates have varied from 3 per cent in some communities to as high as 9 per cent in others.

The capitalized value of real property rises and falls with the average interest rate of all classes of securities, subject always to the situation that makes certain classes of real estate more or less desirable and which influences the capitalization accordingly.

Whereas ten or fifteen years ago it was common to capitalize real estate upon a basis of 4 per cent, it is now usual in urban centers to adopt the 6 per cent rate. Perhaps a safe way of determining what rate should be used would be to adopt the prevailing rate paid as interest in the community for real estate loans. In doing this however, the loans should be selected on a basis of sound security so as not to subject the analysis to the influence of speculative loans.

A change of one per cent in the capitalization rate reflects itself in a surprising extent on the values thereby determined. For example a property with a net income of $12,000 would sell on an 8 per cent basis at $150,000, on a 6 per cent basis at $200,000 and on a 4 per cent basis at $300,000. The lower the capitalization rate the greater will be the resulting effect of values. A fall of from 4 to 3 per cent adds 33 1/3 per cent to the value of the property, from 5 to 4 per cent, 25 per cent, while a fall from 8 to 7 per cent adds but 14 per cent.

If society were in a static condition and progress and change did not occur, then the method of capitalization of rent to obtain land value would be accurate. However, conditions of city growth and the progress of civilization make it necessary to use other means of checking and ascertaining land values. While income return capitalized is an excellent guide to values it must not be considered infallible. Vacant land produces no income, yet it cannot be said to have no value. Often land located upon a city street is held vacant and unimproved by the owner who anticipates obtaining the unearned increment in land value with the growth of the city and the increasing importance of the street for commercial or residential purposes. This is a very common form of speculation. To obtain profit, however, the land must increase in value more rapidly than its carrying charges.

Appraisal based solely upon income would produce very unequal results, lacking in uniformity. Consider two adjacent properties, of equal size and shape, as near alike as to land conditions as possible. On one is located a twelve story office building. On the other a six story department store building. Both buildings are modern, efficient and adequate according to their kind. The management of both properties is efficient. The office building produces a net income of $60,000 a year after allowing all taxes and charges including interest at 8 per cent upon the physical value of the building, thus showing a land value at 6 per cent of $1,000,000.

The store is rented by the owner for ten years for $120,000 a year, the tenant paying all taxes, keeping up repairs and carrying all charges from the operation of the building. The building itself has a sound reproductive value, less depreciation, of $600,000 upon which an 8 per cent return should be earned, or $48,000 a year leaving a balance for land of $72,000 which capitalized at 6 per cent produces a land value of $1,200,000.

The owner who has the office building has land worth $200,000 less than his neighbor next adjacent with a tract of equal dimensions and subject to like conditions. The type of improvement, the time when rentals are fixed, costs of operation of one over the other type of building and many other factors have caused the difference in the net returns obtained by each owner. So it can readily be seen that while income and rentals are an excellent check upon values, yet this method cannot be depended upon to accurately determine the value of land without the consideration of other factors such as sales, the general real estate market and the competition of one class of utility as against another.

Studies made in Cleveland indicate that store rentals in a given location vary as much as 350 per cent, yet the land is worth approximately the same and the buildings do not differ largely in physical character. This study was made in a district bounded by East 14th and East 18th Streets on the South side of Euclid Avenue where land values had increased rapidly in a span of three years' time. Some of the leases and rentals considered were made immediately prior to the leap in values, while others examined gave evidence of the changed condition existing.

Another objection to the use of income as a basis of determining land values is voiced by tax officials who maintain that expense allowances in America have not been standardized. In England, even where property is vacant, a hypothetical expense is charged against the property and a rental value determined in like manner. This method is inaccurate and open to objection as being a mere guess.

Considering rentals as a means of determining value, many appraisers adopt a hit or miss system based upon monthly rentals where improved properties are involved. The most common method as to residential properties is to consider a month's rental as one per cent of the actual value. A rent of $60 a month would thus indicate a value of $6000. Under conditions existing prior to the war this percentage might have produced a fairly representative result. However with the increase in taxes in recent years, higher costs of labor and material and heavier interest charges, it is likely that not less than from 15 to 17 per cent would be a proper factor to use as an annual gross rental or from 1¼ to 1½ per cent per month. This would require the use of a multiple of 80 or 66 2/3 in order to obtain the capital value suggested by this method.

In business property valuation some brokers and investors use what is known as the ten to one rule. This method is also based upon rentals paid and is figured upon the gross rental paid by the tenant. Store rooms that rent on a basis of $1000 per foot front are said to indicate a land value of about $10,000 a foot front. Others use what is known as the 8 to 1 rule which, when applied to a store paying $1000 a foot rent indicates a value of approximately $8000 a foot front.

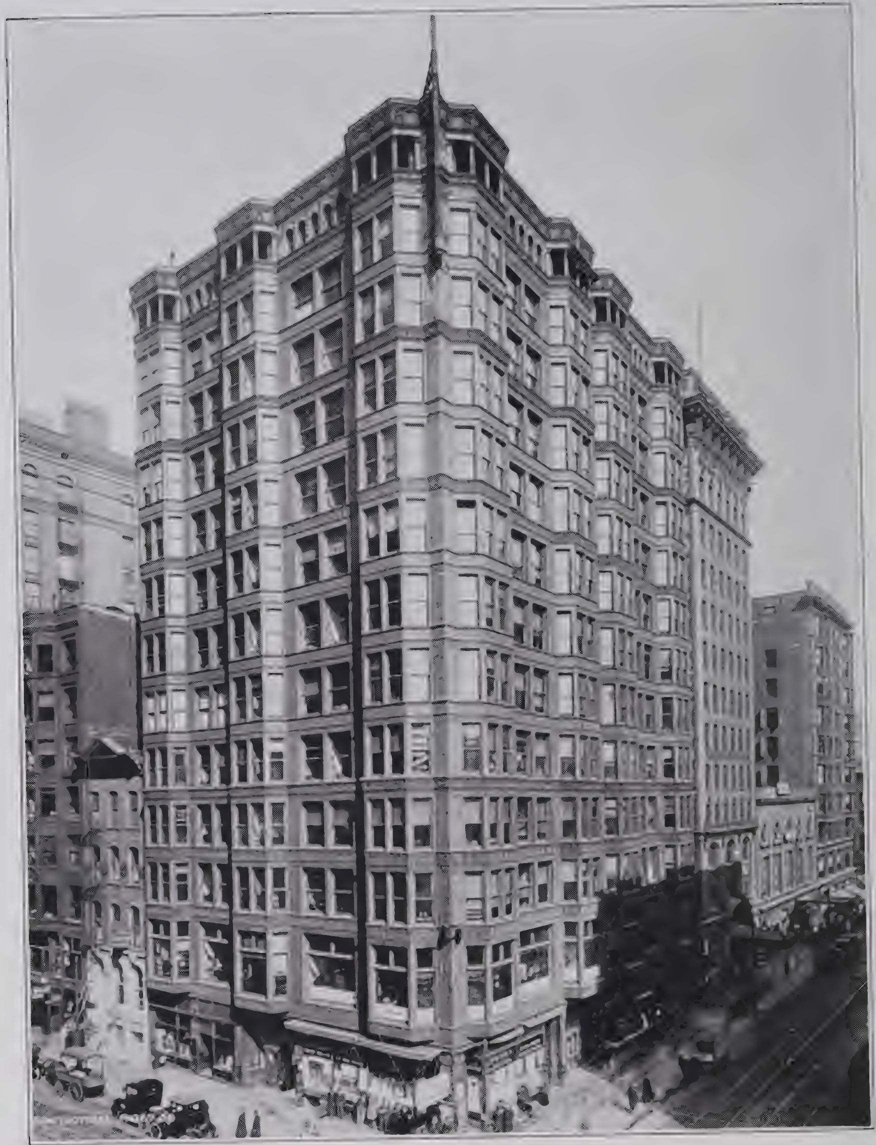
Such rules cannot rise to the dignity of being considered anything more than rules of thumb, to be used only as a quick method of computing values for field work and subject to correction from more accurate analysis and surveys of the principal factors controlling land values.

Studies made in San Francisco by the Building Owners and Managers Association indicate that store rentals are approximately equal to $1 per front foot (1 x 100) per month for every one hundred people passing the store per hour. Land values are likewise affected by the traffic in the street adjacent to it. The conclusion is reached that probably there exists a definite relation between store rentals and land values. This study is predicated upon tax valuations which are not the true value in money of the land involved. Since this has not stood the test of other cities, it cannot be considered more than an interesting study.

With the advent of the income tax law in the United States a situation is being created whereby investments for income only will become more and more popular. Wealthy men are now seeking to make purchases of fees under long term leases with fixed income determined by the terms of the lease. Under such leases there is no chance for enhancement in value of the fee ownership by reason of the increase in value of the land for the reason that the return is absolutely fixed and determined. The only possibility of profit may come through a variation downward of interest rate so as to make an income of $6000 a year upon a $100,000 fee investment made when money was worth six per cent, sell for a sum in excess of the principal sum, for instance $120,000 or upon a 5 per cent basis.

As Americans become more conservative and the occupation of land in cities changes to an economic type, the tendency will be to value land and buildings also upon the basis of the income returned to the owner. Today in certain sections of cities, where a full and complete utilization has been made of the land for commercial structures, values have become more stabilized and a condition of economic value dependent upon the actual net income produced by the properties has been reached. Courts have required land appraisers when valuing such properties for taxation to adopt income as the basis for valuation. In the case of People vs. Purdy, a New York judge in considering the value of premises at 135 Broadway in a fully developed district held that comparative sales under such circumstances were not determinative of the value of the premises but that a more satisfactory method ''is to take the property as a rent producer and see what attraction it would have to a purchaser for an investment of moneys to secure an annual return.''

The practice of leasing land for ninety-nine years now so prevalent in many American cities, will also tend to force the consideration of net return as a determining factor in the valuation of fees covered by long term leases. Experts called upon to testify in condemnation of fees under long term leases are forced to value the interest of the fee owner according to the present value of annual income capitalized at the current rate of interest. In this way the practice is gradually receiving the sanction of the courts. Ultimately valuation according to income will receive in this country far greater consideration in land appraisals than now accorded it.



THE WORLD'S FIRST STEEL SKYSCRAPER

The Tacoma Building, erected in Chicago in 1887, was the first steel skyscraper ever built. Col. Wm. Hollabird, still an active practicing architect in Chicago, designed it. The Tacoma type of construction carries the entire weight of the walls and contents of building on the steel frame work. The introduction of this principle revolutionized building construction in downtown areas of cities where land assumes almost fabulous values.

CHAPTER 28.

DEPRECIATION AND OBSOLESCENCE

Important to student of land values—Definition and distinction—What effect depreciation has upon land values—Influence of obsolescence upon real property—Depreciation tables—Factors which cause buildings to become obsolete—All property suffers from obsolescence—Constant rebuilding must be in progress in a growing city—Destruction of obsolete buildings recommended even though structurally sound.

Students of city growth are not particularly interested in the consideration of buildings except as they affect land values. They are not concerned with technical problems in the management of buildings other than sufficient to understand the influence exercised upon city growth.

Depreciation and obsolescence are problems chiefly concerning the constructor of buildings, accountants and building managers and brokers because, primarily, these factors affect the value and the profitable development and operation of a certain parcel of land. The relationship existing between growth of land values in cities and conditions influencing the efficient and economic operation of real property so as to produce adequate income, is of fundamental importance.

Land is practically worthless if it has not the possibilities of producing income for its owner. This income may be real and objective, measured by money, or it may be subjective and measurable solely in the mind of its owner. Exchange value is objective and according to this standard land is ordinarily valued. Anything that will limit or hinder the profitable use of a property, depresses its value or reflects its retarding influence upon neighboring properties and upon the community growth at large.

Therefore the determination of whether a building is adequate and furthers the economic development of the land occupied, is of fundamental importance to the study of the growth of a city. Likewise it is necessary to consider the physical and structural condition of buildings because of the effect upon the revenue produced by them. Economic deterioration generally known as obsolescence also directly affects the earning capabilities of land and influences values.

Depreciation is a term applied to the physical and structural deterioration of buildings. Obsolescence may be defined as economic depreciation. Depreciation is the steady, inevitable destruction due to wear, tear and decay. Obsolescence is the economic reduction of values from causes outside of the building itself. A change in style of architecture, the introduction of certain improvements in construction, or the shifting of a business center will cause a building to become obsolete although it may be structurally sound and useful for many additional years. Some buildings are obsolete almost from the time they are first built, because of being misplaced. The development of electric elevators has caused hydraulic elevators to become obsolete. Horse drawn street cars were made obsolete when electric cars came into extensive use. Gas lights in buildings have been displaced by electric lights and the building equipped with only gas illumination has suffered obsolescence in this particular if no other.

When a building has deteriorated from age and wear and tear it becomes less attractive to tenants and cannot compete on a rental basis with buildings of newer design and of a more modern type of construction. Rents must be lowered, income falls off, and the owner ceases to secure from his land an adequate return based upon its market value.

Obsolescence has largely the same effect. All buildings are subject to the ills of old age just as are individuals. Physical condition deteriorates but what is more insidious is the "out of dateness" which comes as new and modern equipment make buildings more attractive and improvements in architecture and layout make possible the utilization of space to better advantage.

Inadequacy is another form of obsolescence and arises when sudden changes and the progress resulting from invention and research make a building unfit to economically fulfill the purpose for which it was originally designed. A building may represent an entirely inadequate development of a particular tract of land.

Especially is this true where a structure originally built to carry land of relatively low value is, over a brief period of years, engulfed in the tide of rising values due to the appearance of retail business. A residence in the heart of a retail shopping district is an inadequate development of the land upon which it stands because it cannot normally produce income sufficient to return a fair return upon the market value of the land.

The owner who constructs a building upon his land thinking that "once built, forever done" deludes only himself. Time and use cause materials to decay, repairs are constantly necessary in order to keep the building usable and over all in spite of constant attention, creeps physical deterioration.

Just how long a building can exist as a structural unit is unimportant. The Pyramids of Egypt have stood for over three thousand years. Europe has thousands of structures, still in use, that were built hundreds of years ago. In the United States the sturdy handiwork of the masons and carpenters of Colonial Days stand as monuments to the integrity and honest workmanship of their builders. Yet who will say that many of these structures fulfill an economic usefulness adequate to the value of the land upon which they stand?

In considering depreciation, many methods have been devised to properly determine the structural life of buildings. Experts, in failing to agree upon any definite standard, testify to the fact that so far it has been impossible to devise a way of measuring with accuracy the physical value of a structure and applying it to the determination of the number of years of physical usefulness it will have.

The usual method of depreciating a property is to apply a fixed annual rate to the value of a building and deduct the sum thereby obtained from the cost in order to obtain a depreciated value. The mere statement of such a method indicates its inadequacy. A structure does not depreciate by fixed percentages each year. No consideration is given by this method to component parts of the structure some of which depreciate more rapidly than others.

Some builders apply varying rates of depreciation according to the time when the calculation is made. A structure properly constructed will exist several years from the time of its completion without suffering material deterioration. A very small sum should be deducted from its value during these years for structural depreciation. In later periods wear and tear operate more rapidly and a larger rate should be applied. During its very old age, physical deterioration again slows up because practically all its economic usefulness has been exhausted and unless disturbed the component parts of the building may stick together for many additional years before it crumbles and falls.

Since income taxes have become a part of government finance, depreciation has been given great consideration because of the opportunity afforded taxpayers by the law to deduct from income, allowance for this item. Accountants have devised methods and engineers have worked out tables until now each element going to make up the structure can be separately depreciated in a more or less scientific manner.

So again necessity operating in her material capacity has created a rule called the "average" theory of depreciation. Classifications have been made of the labor and materials and equipment comprising the modern building. Estimates of life and usefulness have been placed upon the materials of each class. The percentage of investment in each classification has been computed and by a process of averaging the "weighed life" has been ascertained. Predicating calculations upon the result so found, a rate of depreciation has been determined.

For office building of modern type a weighted life of forty years has been the result of calculations made under the direction of the depreciation committee of the National Association of Building Owners and Managers. From this a net rate of depreciation has been placed at 2½ per cent per year.

The Bureau of Internal Revenue has not seen fit to announce any absolute or fixed rates of depreciation for various classes of property. The income tax regulations simply provide that "this allowance shall be computed upon the basis of the cost of the property and the probable number of years constituting its life." However, in 1918 the department published an "Income Tax Primer" in which comment is found as to the life of buildings, to the following effect:

> "While each taxpayer must determine the probable lifetime of his property without regard to the following

> figures, it has been estimated that the average usable lifetime of a frame building is 25 years, a brick building 35 years, a stone building or steel and concrete building, 50 to 100 years."

In "Bulletin F," a publication issued by the Bureau of Internal Revenue on "Depreciation and Obsolescence," it is stated that a frame building may remain serviceable for a period of 20 to 30 years.

John A. Zangerle for many years tax assessor of Cleveland has worked out a table of depreciation for several types of buildings which is in use in the tax assessing department of that city as follows:

Class	Life.	Percent Annual Depreciation.
Cheap detached frame houses	30-40	2.90
Good detached frame houses	40-60	2.10
Ordinary brick residences	50-75	1.65
Good brick and stone houses	100-150	.83
Frame tenements	25-35	3.50
Brick tenements and flats	40-50	2.25
Good class apartment houses	50-75	1.66
High class office buildings	150	.83
Cheap brick shops and dwellings ...	40-50	2.25
Ordinary brick shops and houses ..	50-75	1.66

This table is subject to the criticism that the rate of depreciation is altogether too low when the economic use of buildings is considered.

An element of far greater importance to city growth and values is the factor called obsolescence and its effects. Mr. Lawson Purdy, eminent taxation authority of New York, is quoted by the National Association of Building Owners and Managers committee on depreciation as saying:

> "The most important office buildings are in the Borough of Manhattan in the city of New York. Changes have been so rapid that frequently a building ceased to have any value before it had suffered any depreciation from age that was visible or ascertainable. A building is worth what it will earn, though ordinarily it cannot be worth more than the cost of repro-

> duction. Some buildings become obsolete in five years and cumber the ground."

Factors which cause buildings to become obsolete may be summarized as follows:

1. Age and its effect upon values from the standpoint of modernity and adequacy. The useful and profitable life of a building may be measured with a degree of accuracy when the income is compared with the aggregate value of the land and building upon it.
2. Expansion of business districts resulting in the erection of buildings in new business districts. The normal growth of population in cities brings about increases in the size of business areas. Values thereby increase.
3. Business centers shift from one location to another. Large increases in land values occur in the locality to which the business goes. A full utilization of land in the new area results in a stabilization of values and later a decline when a new district develops.
4. Development of new types of buildings better suited to fulfill the requirements of business. These are literally, new styles in construction. This brings about obsolescence in older buildings although such buildings may be structurally sound and fit for use from a physical standpoint for many years.
5. Better service which newer buildings are able to furnish to tenants results in an exodus from the older buildings in favor of the newer. Improved lighting, elevator service, heating facilities, sanitary equipment, garages for tenants' cars, all contribute to the comfort of those who are forced to carry on business in the modern city and are considered desirable.

Commercial structures, manufacturing plants and residences all suffer obsolescence. If an evil, it is essential to the progress of cities and nations that newer and better structures replace old buildings, thereby contributing to the comfort of the inhabitants of the city and to the efficiency of their daily work. "The old order changeth, yielding place to new." Stagnation spells destruction of land values. As long as cities grow, people progress in civilization and ambitious minds devise new ways and means of saving labor and adding to the comfort and efficiency of human beings, obsolescence will be a definite factor to be reckoned with in city growth.

For the building owner, good business practice dictates the destruction of obsolete structures often before their physical life is ended. An inadequate improvement of land may result either from improper initial development or through obsolescence. It matters not by which route, the result upon land values is the same. The best way to anchor values in the business district of the modern city is to provide modern and adequate improvement of the land therein. Occasionally this may seem to be immediately extravagant when sound buildings are destroyed as in the case of the Pontchartrain hotel in Detroit, yet the enhancement in land value which will result from the adequate and modern improvement of a site will ultimately compensate for the immediate loss sustained.

CHAPTER 29.

TAXATION AND LAND VALUES

The general property tax used for raising most revenue—Land values are directly affected by tax burdens—Percentage of income absorbed by taxes often large—Taxes considered as carrying charges—How income taxes affect property values—Investors seek to lease rather than sell property to avoid taxation—Wealthy men sometimes carry non-income bearing property at a loss with the view of saving income taxes—Tax problems require careful analysis.

Chief Justice John Marshall some years ago, in announcing an opinion of the United States Supreme Court, declared that the power to tax is the power to destroy. No more prophetic statement has been forthcoming from our supreme judicial tribunal.

In recent years the significance of this legal axiom has been more keenly appreciated. As the scope of governmental activities is widened, increased public expenditures are required. Taxes have commensurately increased, and new forms of taxation have been devised.

In the United States, and in many other countries, the chief method adopted for the raising of public revenue is the general property tax. Two-thirds to four-fifths of all local and state revenues are derived from the taxation of real estate. The ease with which taxes upon real estate may be collected has occasioned the heavy burden which this class of property is called upon to bear. Federal and state income taxes and other imposts have indirectly increased this burden. The question naturally arises as to whether such direct and indirect tax burdens may be considered as factors affecting land values.

When investments are made, all taxes that can be foreseen are taken into account. This is best illustrated in the market quotations of tax free securities. The underlying principle, however, is equally applicable to other kinds of investments.

Taxes on land, which are more stable and uniform, have a more or less definite and ascertainable effect upon land values. The effect of indirect taxes upon property values is more difficult to measure. The several forms of taxation must be considered separately.

REAL PROPERTY TAXES—Direct property taxes assessed by state, county and municipal authorities have a direct effect upon land values. In considering taxes of this kind it is advisable to separate real estate into three classes:

1. Income producing property and land purchased for utilization in a trade or business.
2. Property purchased primarily for the purpose of re-sale and which may be carried at a yearly loss prior to such sale.
3. Residential properties.

These classifications will be considered separately.

INCOME PRODUCING PROPERTY—Taxes paid upon real estate used in a trade or business are in the nature of current expenses, to be paid from the income received. The amount of the net income or yearly profit which property will produce is affected by the payment of such taxes. If the value of property is to be determined from a capitalization of the income, this factor, by decreasing the income reduces the capitalized value. If income is to be capitalized at six per cent it should be considered that for every dollar paid each year in taxes, the value of the property as capitalized from the income, will be $16.67 less. Direct property taxes immediately affect the earning power of real estate and such burdens are no doubt reflected in the price which a purchaser will pay for a site.

The amount of local taxes may have a direct effect upon the suitability of real estate for certain types of businesses. Some industries, as for example, manufacturing enterprises, do not require locations in a particular area. The necessary facilities often are found in any one of several locations, in each of which the tax rate or method of assessment may vary. Often smaller municipalities that are adjacent to large cities have lower tax rates. Such tax rates may be equally applicable to personal property located upon the real estate. Obviously, in such cases, the desirability of a site may to a considerable extent depend upon anticipated tax burdens, and land values are directly affected.

It is true that in some types of specialized merchandising, a particular location is required, regardless of the amount of taxes that must be paid for the use of the site. In such an instance, the price which the purchaser can afford to pay is directly affected.

These burdens can be forecasted with some degree of accuracy. Each case will be found to have its peculiar or unusual phases and it is not possible to formulate rules which can be applied in all instances. The percentage of the gross income from property which must be applied to the payment of taxes may be surprisingly large. For example, if it may be assumed that an investor should receive each year as gross income (i. e., entire receipts before the payment of expenses) fifteen per cent of the value of the property, and if it is further assumed that the tax rate is $2.50 per $100 of actual value, it will be noted that one-sixth of the rentals and gross income from the property must be used for the payment of real estate taxes.

PROPERTY PURCHASED FOR RESALE—Taxes upon unimproved and non-productive real estate are felt keenly. Such properties seldom yield income from which yearly taxes can be paid. An investor owning this class of property usually considers such payments as temporary losses which will later be repaid upon the ultimate disposition of the property at a profit.

In computing the ultimate profit (for other than income tax purposes) such taxes are usually considered as a part of the cost of the property. To compute the full extent of the yearly loss sustained in this manner, compound interest upon the money paid out for taxes should be included. It will be found that in some instances, the investment in the property is increased each year to the extent of three per cent of the cost. A purchaser contemplating the acquisition of this kind of property should forecast this loss by adding to his calculations all tax payments that will be made prior to the expected time of re-sale, and interest upon these payments, compounded to the date of sale should be included. For example, if it is assumed that such carrying charges increase the investment in the property to the extent of three per cent of the cost each year, the property must increase in value fifteen per cent in five years to make up the outgo in taxes alone during that period.

In every community, there is a large amount of land which is not ripe for immediate development but which enjoys an enhancement in value by reason of future possibilities. In such instances, the purchaser's price is based primarily upon his opinion of the present worth of the future value, but from this present worth there should be deducted the amount of the taxes and carrying charges which must be paid, before the enhanced value is realized. In this manner the anticipated tax burdens have a direct effect upon the value of this class of real estate.

RESIDENCE PROPERTIES—**In the selection of a residence** site, the average home buyer pays little attention to comparative tax rates of different communities. Other features control his choice almost entirely. This is particularly so of small home owners, notwithstanding the fact that occasional subdivision advertisements mention low taxes as a selling argument.

The exception to this practice is sometimes found in the case of wealthy home owners. Men who have large taxable wealth have sometimes found it expedient to erect their homes in suburban districts where low tax rates prevail. Usually, in such instances, the primary purpose is to save taxes on personal property and securities which are taxable in the district where the owner resides.

OTHER TAXES AS CARRYING CHARGES—Personal property taxes, state franchise taxes on corporations, the capital stock tax, and yearly state and federal income taxes upon current profits from the ordinary conduct of business have no *direct* bearing upon real estate values. The burden of these taxes falls upon all fields of business activity. While the income that may be anticipated from the operation of a real estate project may be decreased by the payment of such taxes, nevertheless an investor would encounter similar difficulties in placing capital in almost any other business. As investment values are comparative, it cannot be said that these taxes discriminate in any way against the conduct of business operations incident to the ownership of real estate.

INCOME TAX LAWS AND LAND VALUES—It is a matter of common complaint that income tax complications are encountered in the majority of real estate transactions. Troublesome as these difficulties are, a careful analysis will show that taxation of income received from the disposition of real estate has no direct effect upon the *intrinsic* value of the property involved. However, many of the unusual situations that have been occasioned by the taxation of income indirectly have some effect upon land values.

The income tax may render a real estate transaction impossible and conversely it may furnish the occasion for the purchase of property. The method of consummating the transaction is quite often determined to a large extent by expedients devised to minimize income taxes. Many such deviations, styled as methods of tax avoidance, have occasioned peculiar forms of real property transactions. It is impossible for all of these tax complexities to exist without having some indirect effect upon property values.

In every community are found holdings of real estate which are "frozen," because the owner cannot make a sale without incurring income taxes. It often happens that sales which would lead to real estate developments are prevented. The exact effect of this detrimental influence in a community is difficult to measure, although the existence of the condition is clearly felt.

This situation was realized when Congress placed a limit of 12½ per cent, with certain qualifications, upon the taxation of income occasioned by the sale or disposition of property held for over two years. The result of this lower rate was found to be beneficial. However, existing tax rates are still sufficiently high to render impossible many real estate transactions. It is a matter of common knowledge that the price which an owner of real estate asks, quite often reflects the anticipated income tax which he must pay upon the profit derived from a sale. Not infrequently an effort is made to avoid the effect of unwelcome taxes by consummating the transactions in a way different from that which was originally contemplated. It must be admitted that the ultimate result desired in a real estate transaction can often be accomplished in many different ways with an equal number of different results from an income tax standpoint. It is to be presumed that the government expects a taxpayer to take advantage of all lawful and proper ways of avoiding taxes so long as the means employed do not savor of bad faith.

The situation has been helped somewhat by the provisions of the revenue act of 1921 which under certain circumstances permit the exchange of real estate for other real estate without the payment of income taxes.

LEASEHOLDS—Income tax laws have been responsible, to some extent, for the increased popularity of ninety-nine year and perpetual leaseholds. The increase in the usage of this form of land tenure has been noticeable in the past few years. The owner of land, by granting a lease, may be spared from paying the income tax that would have been assessed upon a profitable sale of the property. It is true that the owner, as lessor, will be required to pay income taxes annually upon the rentals received. This, however, may not result in a net loss to him, because if a sale had been made and if the money derived therefrom were invested in other property, presumably income taxes would be assessed upon the yearly income received from the other property, provided, of course, a reinvestment was not made in tax free securities. A party desiring to acquire real estate may also obtain certain income tax advantages by securing a perpetual leasehold instead of purchasing the property. Under the present income tax laws the lessee of business property can deduct from his yearly taxable income the amount of rentals paid to the lessor, thereby reducing his yearly income taxes. If the lessee had purchased the fee in the land, the amount of the investment in the land would have no effect upon yearly taxable income.

The income tax advantages afforded to certain taxpayers by the use of the perpetual leasehold has partly accounted for the increased usage of this method of acquiring property. Perpetual leaseholds which are the means of permitting developments that would otherwise have been impossible have favorably affected land values.

CARRYING REAL ESTATE AND LEASEHOLDS AT A LOSS—In recent years some wealthy men have found that it is inexpedient to invest in property which produces yearly income subject to income taxes. The acquisition of unimproved, or non-income producing real estate has offered an opportunity for saving taxes to this class of taxpayers. The purchase of real estate of this kind often offers a good investment opportunity, where it is possible to carry the property without income for some length of time. During the period of the carry, interest charges and taxes are paid and, according to the government rulings, these charges may be deducted from annual income, and income taxes upon other income may be thereby reduced. When the property is ultimately disposed of, the profit from the sale is taxable at the rate of not more than 12½ per cent, with certain exceptions, providing the property has been held for over two years. This situation is possible, by reason of the fact that the government considers the yearly carrying charges as current expenditures, whereas the average investor considers these payments as capital outlays. A number of real estate transactions in large cities may be in part accounted for by this situation.

This same condition has arisen in the case of leaseholds, where men whose income falls within the higher surtax brackets take a lease upon property for a "long carry" with the immediate purpose of deducting from taxable income the yearly rentals and with the ultimate view of selling the lease at a profit. It should be noted, however, that the right to deduct these rentals as a business expense, may be challenged by the internal revenue department.

The practice of acquiring non-income producing property by purchase or by lease has been undertaken to some extent by syndicates of investors who pool their capital in a common fund. In this manner the risks attendant to the venture are shared among the syndicate members, and by this means, many real estate transactions are made possible. The income tax advantages sought for are similar to those which exist in the case of a single investor. It should be observed, however, that these syndicates may involve a trust, a corporation, an association, a partnership or a joint venture. The application of the provisions of the income tax law to these various legal fictions presents many complicated and troublesome tax problems, and if care is not exercised severe tax difficulties may be encountered.

It is customary to require the lessee of a perpetual leasehold estate to erect a building upon the leased property. The existence of such obligations in many instances has forced the erection of structures which might not otherwise have been constructed and for which there may not be an immediate need. To some extent, these leases have been occasioned by the income tax laws, and hence this peculiar condition may be, in part, attributed to the existence of such taxes.

Each real estate transaction presents its peculiar tax complications, some of which are inherent in the nature of the property and some of which are peculiar to the buyer or the seller. Each problem requires careful analysis so that the relation between tax burdens and real estate values may be properly understood.

CHAPTER 30.

PREPARING FOR FUTURE AIR TRAFFIC

Cities are preparing for this new form of transportation—The airplane here to stay as a transportation facility nurtured under government control—Civic uses of the airplane—Benefits derived by establishing an airport—Principal requirements of landing fields—Transcontinental flights in twelve or fifteen hours appear possible—Difficult to foresee effect on city growth and values.

Foresighted city governments are preparing for the invasion of the airplane, and are establishing suitable landing fields for the use of this new transportation facility.

Twenty-five years ago, the automobile was an unknown factor. What city in 1900 would have conceived of the difficulties attendant upon the increase of automobile traffic in American communities?

During the latter half of the nineteenth century, the city that made small preparation for railroads was either passed by, or later subjected to tremendous expense in adjusting its business areas. So must the city of today consider the problems that transportation through the air will present.

The airplane is established beyond the experimental stage as a transportation facility. Passengers, mail and light freight are freely carried over a number of regular air routes in this country. European countries are far in advance in aviation from a commercial standpoint, and the principal cities of Europe are now linked with regular airplane express services on which high grade, safe and speedy service is maintained.

It is interesting to speculate on the extent that the airplane may influence American business life in cities of the future. It is an element to be reckoned with in municipal life, and steps should be taken by the larger cities, at least, to provide adequate airplane terminals.

The airplane is coming to have various civic uses, among them being:

A. Architectural studies of individual buildings or groups of buildings, are made through use of the airplane
  1. Progressive photographs showing development at various stages.
  2. Studies to get influence of surrounding buildings.
  3. Bird's eye views of existing groups—for modification or development.

B. City planners find use in making
  1. Studies of river and harbor terminal problems.
  2. Observations of river flows, to determine location of breakwater channels, etc.
  3. Street layouts, parks, etc.
  4. Building problems, street traffic congestion, fire regulations, etc.

C. Airplanes are used, in ambulance service, in providing
  1. Transfer of patients from vessel to hospital.
  2. Physicians for emergency cases.
  3. Transportation of surgical instruments and supplies.

D. Police Patrols now have aerial equipment for the
  1. Capture of criminals.
  2. Prevention of reckless speeding.

E. Fire departments have flyers who aid in
  1. Fire location and district surveys.
  2. Smoke nuisance investigations.

It is noteworthy that the federal government is showing the same interest in the development of aviation that it took years ago when it fostered railroad growth by giving grants of lands and rights of way through new territories. The government's most active peacetime agency is the postoffice department, which now maintains a number of air routes for the transportation of mail, and is constantly planning expansion of the service. Coincident with the creation of landing fields the government is interesting itself in seeing that such fields are of proper size and design so that they may be used by the postal service, or for military purposes, if it should ever become necessary to do so. Certain regulations are being evolved, and these will be broadened as the need becomes apparent.

The benefits to be derived from the establishment of a suitable airport by a municipality are twofold: First, from the standpoint of the proper support being given to commerical aviation, and second, from the standpoint of contributing to adequate preparation for national defense. The building of an adequate airport immediately equips a city for use as a station for commercial air lines. The city is then available as a terminal or stopping point for aircraft, and the benefits of a rapid, yet comfortable, means of transportation is available.

For the most part, fields are municipally owned, or are under lease to a municipality. The government, which has accepted the position of leadership, will not negotiate with private parties or organizations for landing places for planes used in the mail air routes but requires that the municipality selected as a station on the air route shall control and operate its own landing field.

Four principal things must be observed by the city which desires to place itself on the air map of the country:

1—The position of the field must bear some definite reference to the main aerial routes.

2—It must be so located and of such size that it cannot be hemmed in by future building operations so as to hinder flight and landings.

3—It must, if possible, be susceptible of expansion.

4—It should be situated close to transportation facilities, and water supply, but not necessarily within the city limits.

The size of the field recommended by the governmental experts for such purposes should allow a nine hundred yard runway in every direction with no obstacles. This necessitates the field being at least 2700 feet square. A smaller field, however, may be used if land for the large one is not available. The best shape for such a field is square, or rectangular, although an L-shaped one may be used. It is recommended that the field contain one hundred and sixty acres of level land.

The usefulness of small fields is determined by the presence or absence of obstacles around the field, which prevent a clear approach for landing. An obstacle about one hundred feet high, for instance, would make at least 700 feet of a landing field unavailable for landing. Thus, the available length of the runway should be computed by subtracting seven times the height of obstacles that materially obstruct the approach to a landing field from the total length or breadth of the field. All landing fields should be free from the proximity of high buildings, high tension wires, trees, or other obstacles.

The ground should be firm under all weather conditions. A light, porous soil, with natural drainage, and covered with close cropped grass, is preferred. A concrete cross with sections 150 feet long by fifty feet wide should be installed for wet weather getaways. The field should be level and smooth so that airships may land, and taxi across without damage.

The surrounding country should, if possible, afford opportunity for forced landings, in the event of engine trouble in taking off.

The best way to mark a landing field is by a large circle 100 feet in diameter, and four feet wide. This should be marked clear white from time to time so that it may be always visible from high altitudes. The name of the station should be marked by letters fifteen feet high and three feet wide.

The accommodations of such a field should provide communication by telephone, transportation facilities by street car or automobile on paved roads, and gasoline, oil and sundry supplies. A wind indicator, such as the standard wind cone, should be placed in one corner of the field, about 30 feet off the ground, or on the hangar, if there is one.

The air service and postoffice departments of the federal government will assist in the selection and laying out of any municipal landing field. It must be controlled by articles of agreement signed by the municipality and the government, in the event the field is used for governmental purposes. The government officials, however, should be consulted in establishing any field, as it is impossible to know when federal agencies may desire to use it.

In connection with such a field, it is desirable that a type of hangar, approved by government aviation experts, be used, and that at least two skilled attendants be in charge.

The time may come in a few years when every city will have a number of properly equipped landing fields for the use of its residents and visitors, and for commercial purposes. The extent to which the airplane may come into use is difficult to determine, but that it will be extensively employed in trans-city travel seems certain.

In 1923, United States government aviators established the first non-stop continental flight from New York to San Diego in twenty-six hours' time. With improvements in design of planes, fuels and motors which are certain to come, greater speed will be attained. A prediction is ventured that it will not be long before a traveler will be able to enter a palatial machine in New York City at four or five o'clock in the afternoon, and eat breakfast next morning in the St. Francis Hotel in San Francisco, the Biltmore Hotel in Los Angeles, or the Hotel Grant in San Diego. Regular flights in large planes, carrying fifteen or twenty passengers, are now made on definite schedule between London and Paris at a fraction of the time taken by train and boat. Commercial passenger air routes are now maintained between important cities on the Atlantic coast, between Cleveland and Detroit, and from Los Angeles to San Diego, as well as between some other points.

It will soon be necessary that municipal ordinances be adopted governing travel by air. This doubtless will be done in conjunction with federal authorities, for it is more important that such ordinances be uniform than in the use of automobiles, as desirable as that may be.

Designers and operators of big office buildings in the larger cities of the country are already studying the possibilities of furnishing landing places for airplanes on the roofs of large city buildings. With the development of the helicopter type of airplane, which rises or descends vertically from a given point, it is within the realm of possibility for a business man living fifty or seventy-five miles away from his office, to fly to work and land directly on top of his own office building, sending his machine back home by an aviator, who can return for him in the evening when his work is done.

It is difficult to foresee at this time what effect airplanes will have on city growth and values. When the automobile first came into use, no one could visualize the revolution in city life that it was to bring. Time only will tell the story of the effects of the airplane.

CHAPTER 31.

RECREATION

Facilities better organized in cities than in rural sections—Parks one of the earliest recreation features provided—"Keep off the grass" signs now obsolete—All forms of sports fostered in city parks—Scientific play directed by competent instructors—City golf links quite common—Race tracks and private recreational parks give way before city growth, and often disappear—Instinct to play must not be eliminated—Recreational features of a city prove magnet in attracting settlers.

Recreation is essential to all persons. Country lads find their joys in essentially the same ways as do their city brothers. They play games and seek diversion after daily tasks are done just as they would if transplanted to an urban center. However, the facilities afforded for recreation are quite different.

In rural districts little, if any, organized recreation is provided. Practically all recreational facilities in a modern city are established as a result of organized planning. Those living within the confines of cities perhaps require more recreational facilities than those blessed with the abundance of fresh air, warm sunshine and ''swimmin' holes'' afforded in the country.

So it becomes necessary for a city to plan well and adequately for the recreation of its inhabitants in order to preserve the standards of health and morality which are so essential to growth of a city.

Perhaps the earliest facilities afforded for public recreation by municipalities were parks. European cities early learned the advisability of providing large open spaces throughout city areas to relieve street congestion, and furnish inhabitants places in which to assemble. Often these were used as sites for public structures and monuments. Many times large wooded areas were purchased and laid out with boulevards, drives and roadways. Great forest preserves were established for private and public use.

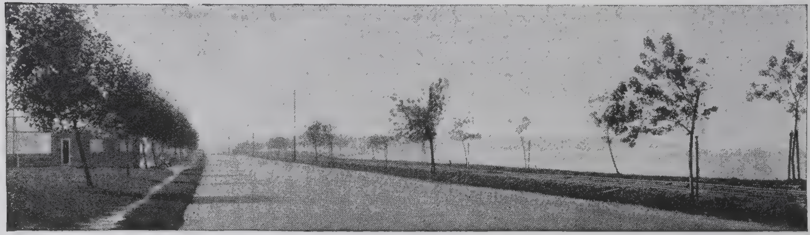
In America from early colonial days, urban settlements have been planned with parks, public squares, commons, and open spaces where people could congregate and seek recreation. Today there is scarcely a city that does not have many such areas, beautifully landscaped and carefully maintained at the expense of the public. Even the federal government has purchased or assigned large tracts of land for national parks. States have acquired property having historical interest in order to preserve it for the benefit of the present as well as future generations. Even small towns and villages are now securing land for parks and public playgrounds.

Where a city is located near a large body of water, parks are laid out along its shores, maintained at public expense thus preserving for the benefit of all, the beauties of nature. Ravines and large wooded areas particularly those within the boundaries of a city, lend themselves to development into parks which will afford healthful recreation and diversion to countless thousands of citizens and their families. Such land often is suitable for little else and the modern city is learning to preserve it for public use.

AN ARTISTIC BATHING PAVILION IN A CITY PARK

A decade ago, the civic ideal demanded that the use of such parks be carefully limited. Signs warned one to ''Keep off the grass.'' Like the ''parlor'' of our ancestors, the park was to look at, not to use. Today few of these signs may be found. Full use of such play spots is granted. Children and adults may romp and play to their hearts' content on the wide expanses of green grass. Bridle paths are built so that riders may enjoy a canter upon their favorite mounts. Automobiles use freely the broad, smooth boulevards and drives. Bands furnish inspiring music at regularly scheduled concerts. Ball diamonds, polo grounds, football fields and tennis courts are maintained at public expense. Many parks have beautiful natural or artificial lakes upon which boating may be enjoyed and often large swimming pools and bathing beaches are provided where bathers can dip in the cool waters on hot summer days.

Some parks afford canoeing upon streams or artificial canals. Occasionally open air theatres afford opportunities for entertainments. Picnic places are set aside for those who enjoy beautiful natural surroundings. Municipal piers and stadiums are appearing in many of the larger cities and are liberally patronized.



A WATERFRONT BOULEVARD

Access to a beautiful lake may be had by such means to thousands of weary city dwellers on summer days.

Another development of more recent years is the municipal playground provided by most cities for children. Here are constructed all kinds of mechanical devices such as swings, slides, merry-go-rounds, and the like upon which children may play. Supervisors often are employed to encourage and direct play along proper lines, and to properly control the use of the grounds. Particularly is this facility for recreation afforded in congested districts of large cities where families live in crowded quarters, with practically no place for children to play except upon the streets. Many cities, after furnishing playgrounds, have passed ordinances prohibiting playing upon public streets.

Some cities, where play spaces are insufficient for the needs of a district, employ directors, who during certain hours of the day or evening rope off certain street areas and direct the play of the neighborhood children thereon. These spaces are often used for dancing and roller skating parties.

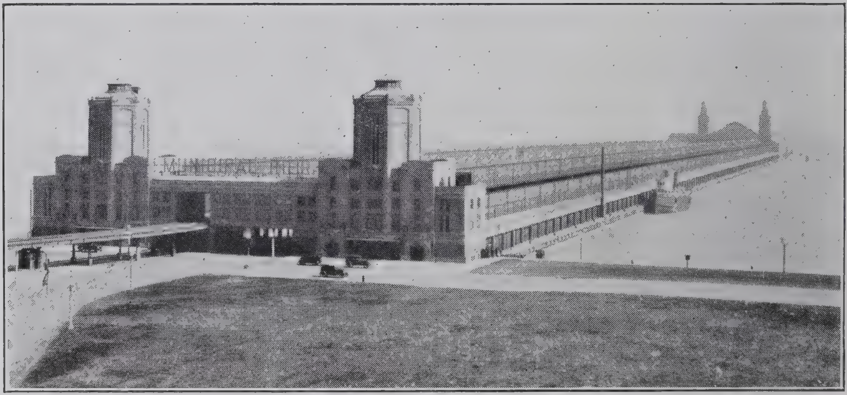
It is contended that by directing the play activities of city boys "gang" tendencies disappear, and petty crime often is lessened, or practically eliminated. In St. Louis an investigation is said to have shown that proper direction of municipal playground activities resulted in a decrease of seventy-five per cent in crime among juveniles in one district. A municipal Halloween party in Duluth reduced the breakage of street lights thirty-seven per cent. Records at Yakima, a town in the State of Washington, are said to indicate that as a result of the installation and operation of playgrounds boy crime was reduced fifty per cent in that community.

TENNIS COURTS IN CITY PARKS

In addition to facilities furnished by the municipality for the pleasure and amusement of its residents, there are many commercial enterprises directed towards the furnishing of recreation to city dwellers. Privately operated parks are conducted on a large scale. Concessions are let for various attractions, such as dance halls, roller coasters, shoot the chutes, and the like. Band concerts and vaudeville entertainments often are furnished free of charge. Sometimes bathing beaches and boating may be enjoyed for a small charge. Occasionally this type of recreation is loosely conducted, and the effect upon those who patronize it sometimes is detrimental.

One of the developments which has done much to widen the the scope of city activities along recreational lines is the construction of golf links, municipally owned and conducted for the benefit of all who care to use them at a very nominal charge. For many years it was impossible for the man of average means to enjoy golf because of the expense involved. Now with city owned courses the cost is reduced so that it comes within the reach of all.

Recreation is afforded in another way for city inhabitants by municipal holidays, flower and building shows, public pageants, regattas and boat races, ball games of various kinds, fireworks displays, Fourth of July celebrations and tournaments. Often a small charge is made to cover a portion of the expense but this is never so high as to make the entertainment prohibitive to any who wish to patronize it. The moving picture has furnished city dwellers another form of amusement which in recent years has become so popular that it promises to surpass in patronage all other forms of organized recreation.



A FIVE MILLION DOLLAR PIER

Chicago in 1910 built this monster pier, 3100 feet long and 300 feet wide, over the waters of Lake Michigan. It furnishes a landing place for lake boats, and also is a recreation center. It has never been a success from a business standpoint, although trans-shipping is easily accomplished from boat to train. At its end is a large recreation pavilion furnishing amusement to thousands on summer nights. Many cities are using water front facilities for the erection of free recreation piers.

As cities grow in size and larger areas are required for homes and business purposes, much space devoted to private recreational activities such as race tracks, ball parks, and private amusement parks becomes so valuable that they are abandoned and their use changed. Golf, tennis, and riding clubs, find themselves forced to move to new homes farther away from city centers and surrender their land to more profitable use. Baseball fields profesionally used and earning large gate receipts at least in summer months may continue regardless of city developments, but no such luxury can be afforded race tracks used for one or two short meetings a year, or by clubs devoted to amateur sports requiring large space and depending for support upon contributions from members.

NO MORE DODGING BOULEVARD TRAFFIC HERE

Dense streams of automobiles often prevented pedestrians from crossing the boulevard in Edgewater Park, Cleveland, for many minutes at a time. The city solved the problem by building this subway for pedestrians only.

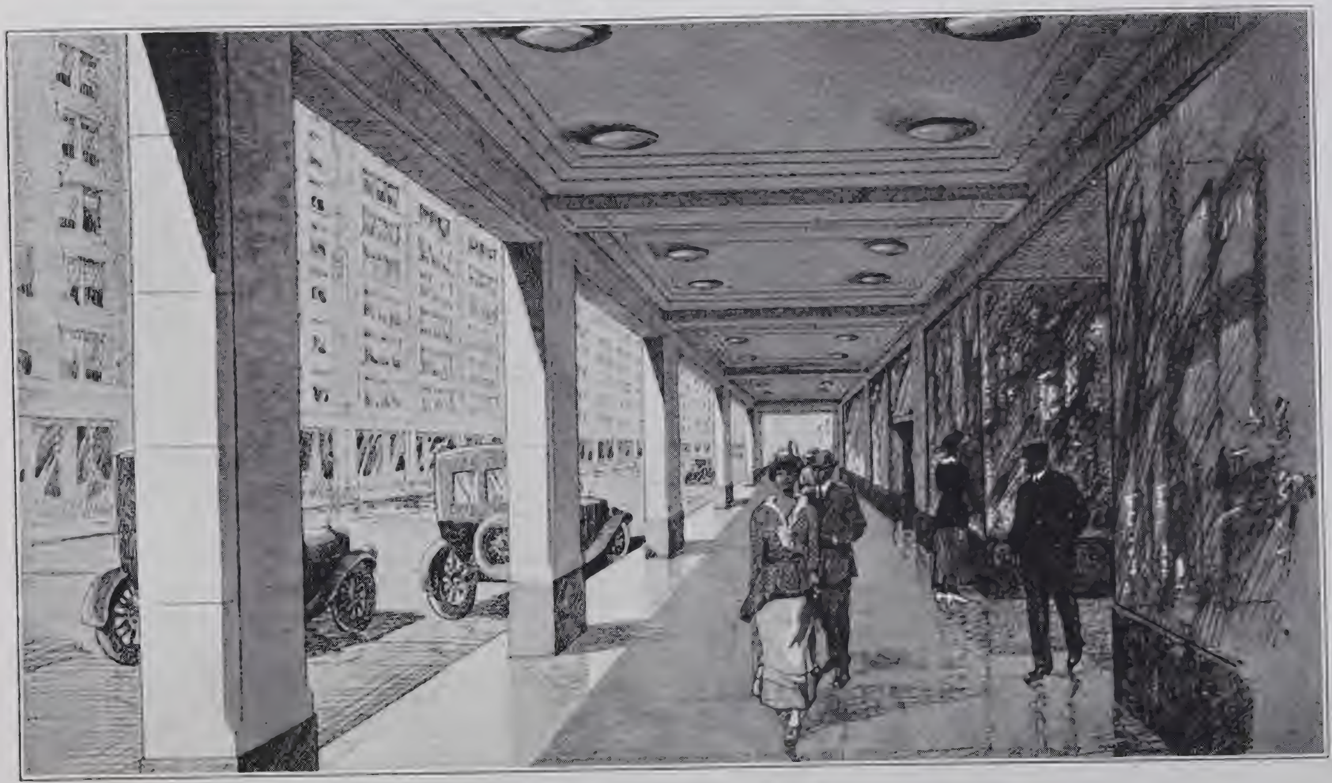
When towns grow into cities and vacant lots are seldom available, city governments find it advisable to maintain baseball diamonds in parks, though city facilities for the sport often are none too ample. Racing, golfing, trap-shooting and other clubs move along to more distant scenes or pass out of existence. The motor car helps many to enjoy their favorite sports even if they do live in big cities. Others, finding their play instinct virtually defeated by city existence submit without much of a struggle and live lives devoid of open air recreation.

A city to grow must provide for its residents both young and old, ample and adequate play facilities. The play instinct is as old as the race and cannot be entirely eliminated. In fact it should not be, for as it is exercised in moderation, the health and morals of the people are improved and cities become better places in which to live and rear families.

In planning cities large areas should be provided for public parks and playgrounds in advance of actual need, and should be so located as to be accessible to persons living in all districts. Each should be provided with its own park. Many smaller playgrounds should be conveniently established to provide play facilities for city children. These probably should be located close to school houses and directed by school authorities.

Commercial recreation will take care of itself and will locate in spots where it will attract patronage. The burden of providing play is and should be a city function, affording ample facilities for healthful recreation. By so doing it will encourage the neighborliness which should exist in cities in order for them to really become good places in which to live.

Adequate play facilities will do much to foster contentment among residents and promote good health. As cities grow larger, the more urgent becomes the need, and the more important to future growth. A city well supplied with recreational facilities will become increasingly attractive to those seeking new homes and new locations for businesses. Contentment will foster growth as well as increase indirectly land values by making the city a better place in which to live.



WIDENING CITY STREETS BY MEANS OF ARCADES

Where existing business thoroughfares cannot be widened without almost prohibitive expense, this plan may be effective. Stores are set back twenty feet, and the lower portions of buildings are converted into arcades, thus allowing the full width of the street itself for the use of vehicular traffic.

CHAPTER 32.

CITY PLANNING HELPS CITY GROWTH AND STABILIZES VALUES

Larger populations can be conveniently accommodated—Shifting of values may be checked—Co-ordinates public improvements—Ten problems of city planning—Public conveniences and improvements scoffed at in their infancy—Transportation related to city planning—Real estate operators approve—How a city plan is conceived and promoted—Paying the price of city planning.

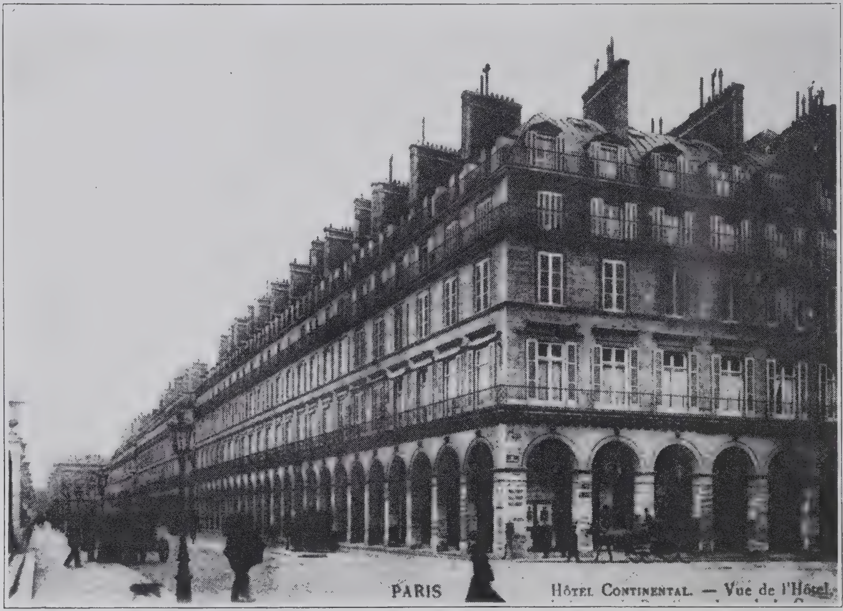
City growth and the stabilization of real estate values in urban communities can be materially advanced by proper, constant and consistent effort directed toward controlling the development of the city in an orderly manner, according to a well conceived city plan.

City planning may be defined as the guidance of the physical development of communities in the attainment of unity in their construction. A city consists of land allotted to streets, parks and other public uses, and of ground devoted to use as residences, factories, stores and for other private purposes. To attain unity in city construction, some measure of control over all this land, whether publicly or privately owned, is essential.

It is relatively easy for a city to control the development of the land owned publicly. A comprehensive plan can be adopted for the location of public buildings, streets can be laid out in new districts in relation to the plan, even the structure of municipal buildings can be controlled according to a general scheme.

Private ownership of land causes grave problems to the city planner. Under the laws of the United States, a man's house is his castle. He may not be disturbed in its possession unless his occupancy causes direct and material injury to his neighbors. Legal restrictions, however, may be thrown up about the use of private property, which are constitutional and entirely within the power of municipal governments. Building height limitations, building codes, and zoning laws are direct efforts on the part of city governments to control the use of private property, and when reasonable and uniform in their operation courts have generally held such control to be entirely constitutional.

Two considerations prompt city planning—the aesthetic and the practical. The day of the dreamer who raved over "the city beautiful," but who forgot "the city useful," has passed. Such dreamers conceived many extravagant plans for the rebuilding of the modern city, which, if adopted, would have bankrupted the richest municipality. Monumental fountains at downtown street intersections formed a part of his ideal for cities. His artistic and impractical buildings would have lined business streets. Palaces for workingmen beyond their purse or pleasure did not to him seem impossible.



ARCADED STREETS COMMON IN EUROPE

The Hotel Continental, Paris, is an example of that type of architecture which provides arcades for pedestrian traffic instead of open air sidewalks.

This class of false prophets has been replaced by the practical city planner, who places utility first, and beauty second in his scheme of the Utopian city. Cities which have grown haphazardly along natural lines cannot be rebuilt in a decade to accommodate the ideas of even the most practical city planner. The cost is too great, and while old sections of existing cities may be vastly improved, greater progress will be made in planning and directing the development of new and outlying districts.

Advocates of city planning maintain that real estate values are enhanced by proper and practical city plans. The shifting of values in business districts has had a most demoralizing effect upon all large cities. This condition was partly responsible for the adoption by the City of New York of its zoning ordinance. It is the motive which is causing cities throughout America to adopt schemes for street layouts to accommodate the constantly increasing traffic burden, and to direct as far as practicable the growth of the city along lines which will contribute to the health, happiness and welfare of all inhabitants, and incidentally to the stabilization of real estate values.

In Europe for centuries cities have grown along well conceived plans often fostered by some despotic government usually against popular consent. Paris under Baron Haussmann spent $250,000,000 on a system of boulevards, and London has done much to improve its Strand. Boston, Chicago, Philadelphia, and Cleveland, in America, have spent large sums of money upon public improvements under the guidance of city planning commissions. It is expected that St. Louis will expend $86,000,000, authorized in 1923, by a single bond issue, upon public improvements.

Cities of all sizes and types can benefit through intelligent planning, but the most effective work can be done while the municipality is still small, and in a formative state. Districts can then be set aside for special uses without hardship to individual owners, and as the city grows, its course will follow the plan adopted.

City life is complex, and the factors of its physical development are numerous. To secure unity, planning should include and harmonize as many as possible of these factors, whether public, semi-public, or private. A comprehensive plan should contain provisions for—

1—Systems of streets with building lines placed according to the use for which the street is designed.

2—Waterfront improvements.

3—Public parks and playgrounds.

4—Sites for public and semi-public buildings, such as the city hall, court house, auditorium, or library.

5—Transportation systems, local and long distance, providing for terminals, both passenger and freight.

6—Public utilities such as gas, electric, and waterworks systems.

7—The subdivision of land, and the regulation of the construction of improvements thereon.

8—The location of private enterprises, such as factories, warehouses, markets, commercial structures, and other types of business.

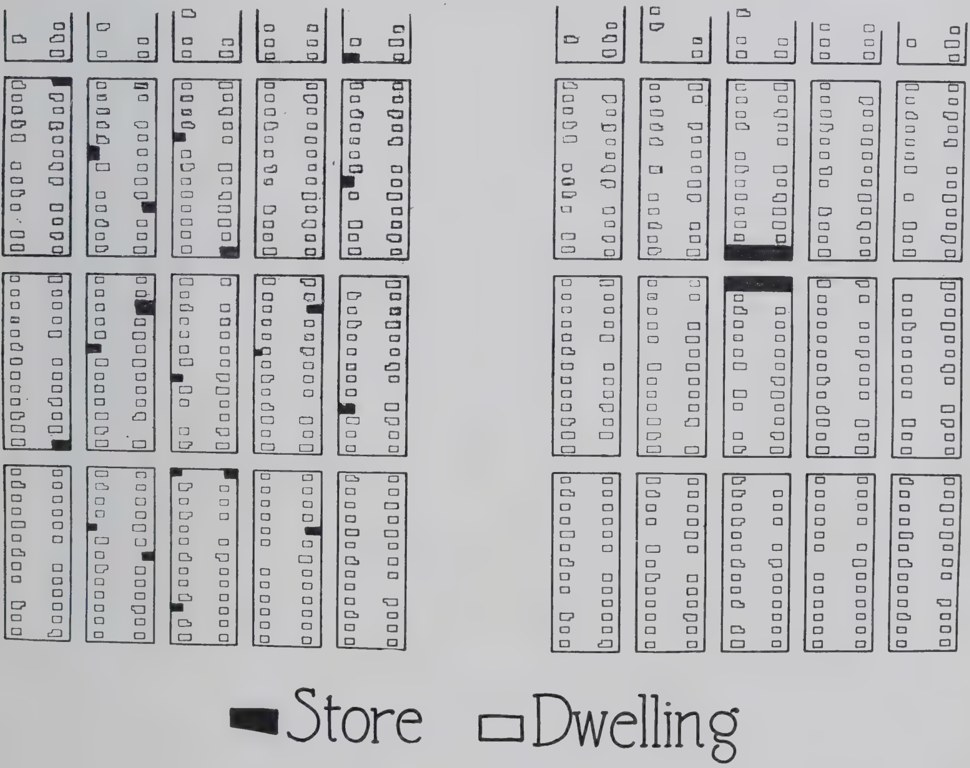
9—Building regulations limiting the height of buildings, the area of the site to be covered, and the type of construction.

10—A sufficient amount of land to be used exclusively for residential purposes, regulated to prevent the encroachments of business uses, so as to conserve the value of the district for home use.

11—A comprehensive plan for financing public improvements, according to the needs of the city, with as little burden to taxpayers as possible.

Detailed plans need not be adopted for an entire urban area. Locations for public buildings should be fixed, reservations made for parks, schools and playgrounds, and in outlying sections, streets may be planned with reference to the thoroughfare system as a whole. From time to time, as city growth demands, these improvements can be installed, and developments carried forward. In this manner public moneys can be conserved, and large saving effected, obviating the necessity of acquiring lands for such purposes after private owners had occupied the various areas with substantial buildings.

It is the unhappy history in city growth that all improvements designed to make the municipality a better place in which to live have been bitterly opposed by shortsighted persons, many of whom fail to vision the needs of the community as a whole. Progress has been combating inertia throughout the ages. With the passing of the old town pump, the newfangled waterworks systems were unfavorably received. Taxpayers fought street paving as an unwarranted expenditure of city funds, and were particularly bitter when forced to bear their proportion of the cost of paving the streets in front of their properties. Street cars were considered a menace to public safety. Sanitary sys-



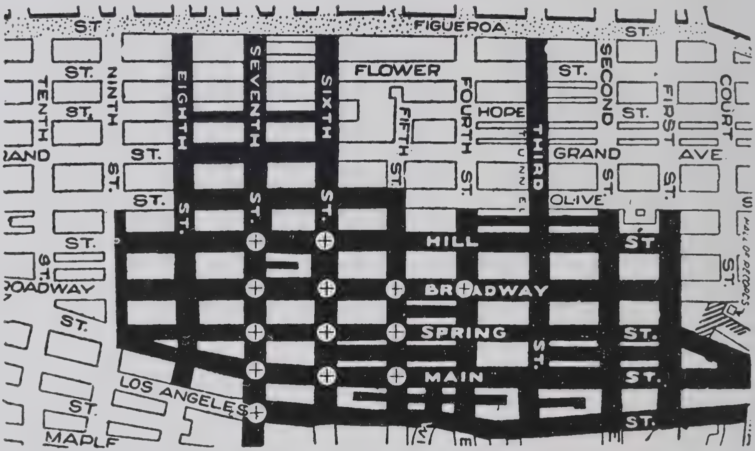
BUSINESS CENTERS ARE DESIRABLE

Convenient shopping districts are desirable in a residential neighborhood, but instead of permitting stores anywhere, as indicated on the left, they should be grouped in one section as on the right. More business will come to merchants, and greater property values will result. Merchants will be able to pay higher rentals because of concentration of all neighborhood business in one area.

tems met favor only gradually. The road of the public improvement has ever been hard.

Not until the twentieth century was definite planning considered a necessary function of city government. Today scores of cities in the United States have city plan commissions under the direction of men trained to observe civic needs, and diagnose and direct the development of the city along orderly lines.

Planning has many triumphs in this country. Washington, considered by many the most beautiful city in North America, is the climax of the planner's skill, and is a noteworthy example of early efforts in city planning. Cleveland and San Francisco have led American cities in the adoption of group plans for the location of public buildings. Chicago has been promoting the ambitious idea of widening and extending Michigan Boulevard along the lake front. Definite plans for reclaiming low-lying land along Lake Michigan are now being carried forward. The list of American cities having commissions for the development of city planning is yearly becoming larger, as opposition is gradually being broken down, and citizens are realizing the merits of a comprehensive scheme of city expansion.


ST
FIGUEROA
ST
ST.
TENTH
ST.
NINTH
ST.
EIGHTH
ST.
SEVENTH
ST.
SIXTH
ST.
FLOWER
FIFTH
ST.
FOURTH
ST.
HOPE
THIRD
ST.
SECOND
ST.
FIRST
ST.
COURT
ST.
GRAND
AVE.
OLIVE
ST.
HILL
ST.
BROADWAY
SPRING
ST.
MAIN
ST.
ST.
LOS ANGELES
ST.
MAPLE
HALL OF RECORDS

The congested district of Los Angeles is shown in the black striped area. In this district parking is prohibited between the hours of 4 and 6:15 p. m., otherwise 45 minute limit. Corners where left hand turns are prohibited are shown with the cross.

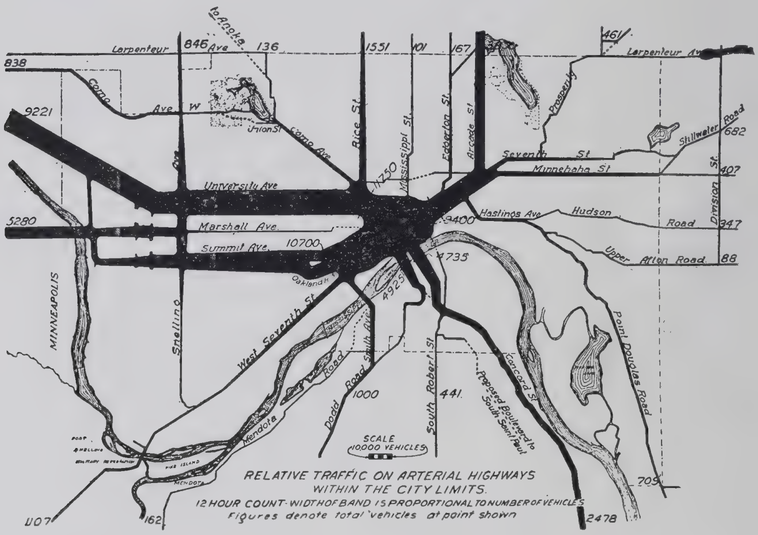
Transportation is intimately related to the orderly growth of cities. Intelligent and scientific plans are being adopted in many cities for the widening and extending of present main thoroughfares, and the creation of new streets to care for the tremendous volume of road traffic daily increasing with the widespread use of motor vehicles. As land becomes readily accessible to people through the development of good roads for vehicular traffic, property values increase, and owners are accordingly benefited.

Many real estate operators and subdividers, formerly cold towards the subject of city planning have come to see that it has a definite and favorable reaction on their business, and most of them favor, within reason, a wider application of the idea. Owners of land now recognize the influence of city planning, realizing that its intelligent application will mean greater returns in money, as their land is improved and sold. Where it is necessary to acquire property for public use the city may exercise the powers of eminent domain and by condemnation proceedings acquire land in case negotiations with an owner fail.

City planning is now promoted along very definite lines. Usually through some public spirited organization, sufficient public sentiment is crystallized to provide for the passage of a city planning ordinance, authorizing the creation of a commission, and permitting it to expend funds for the formation of an actual plan on paper. Experts are then called in, long and careful studies are made of all phases of city life, and then a definite series of maps and surveys are prepared, attempting to provide for the city's expansion for years to come. All new growth is directed and controlled along co-ordinated lines, and the city expands in an intelligent way. It attracts new residents through its convenience, and beauty, and with the growth of population new real estate values appear and are capitalized in rentals.

The modern city plan will give primary attention to streets as today much of the intercity transportation of passengers and goods depends upon them. Thoroughfares are widened and linked up with other streets, new bridge and street car extensions are suggested, and control is established over new sub-divisions. Parks and recreational places are planned for the future, areas of natural scenic beauty or historic significance are preserved through purchase, and public building programs developed and co-ordinated, so that such structures will be imposing, attractive, properly located and adequate for community needs. Co-operation of the school board is obtained so that schools will be placed at proper locations, with reference to the future needs of the city's population.

The larger cities of the country face two distinct problems, that of new development in the suburbs, and changing past developments in down town sections which may prove a hindrance to future expansion. Many of the suburbs of the larger cities are keenly alive to the necessity for intelligent study and control, and have adopted zoning as part of their city planning. They are extending their thoroughfare systems—on paper at least—far out beyond their present limits, so that as new territory is absorbed and built up, there will be unity of development.



RELATIVE TRAFFIC ON ARTERIAL HIGHWAYS WITHIN THE CITY LIMITS.
12 HOUR COUNT-WIDTH OF BAND IS PROPORTIONAL TO NUMBER OF VEHICLES
Figures denote total vehicles at point shown

to Anoka
Larpenteur
846
Ave
136
1551
101
167
461
Larpenteur Av
838
Como
Ave
W
Union St
Como Ave
Rice St.
Mississippi St.
Edgerton St.
Arcade St
Prosperity
Stillwater Road
682
9221
Seventh St
Minnehaha St
407
1750
University Ave
5280
Marshall Ave.
Summit Ave.
10700
9400
Hastings Ave
Hudson
Road
Division St.
347
Upper Afton Road
88
4735
Oakland
4925
MINNEAPOLIS
Snelling
West Seventh St
Mississippi
Road
Smith Ave
Dodd Road
1000
South Robert St
441.
Proposed Boulevard to South Saint Paul
Concord St
Point Douglas Road
Mendota
SCALE
10,000 VEHICLES
Fort Snelling
Military Reservation
Pike Island
Mendota
1107
162
705
2478

HOW TRAFFIC DENSITY IS RECORDED

The above diagram shows the flow of vehicular traffic in St. Paul, and is indicative of the kinds of surveys and studies made of such problems by experts. In this instance, the peak load is on the main route leading to Minneapolis.

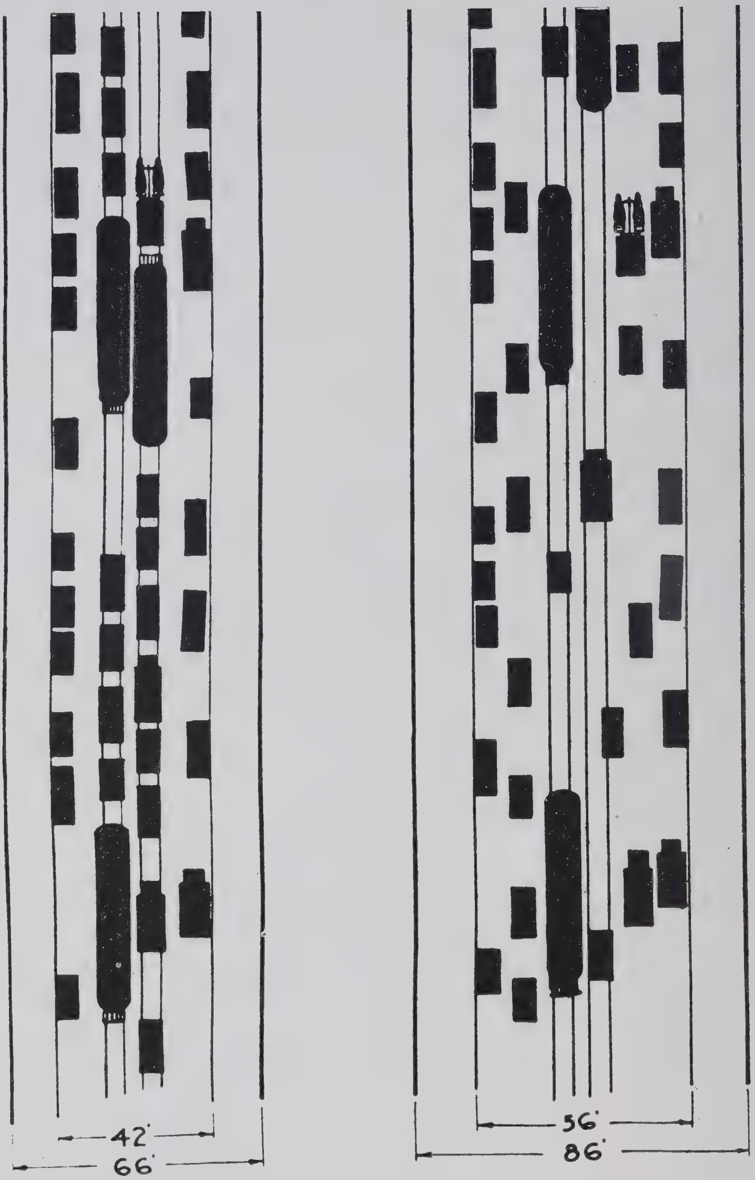
The changing of the character of past developments presents many problems which are difficult because of the expense involved. Nevertheless many streets are being widened, the height of buildings and the occupancy of lots are being controlled, resulting beneficially to all residents of the community.

City planning, particularly as it affects the rebuilding of the older portions of a city is costly. There is an element of danger in working on a wave of high enthusiasm in that a city may commit itself to the expenditure of more money than it can afford. The tendency of most cities is to assume that city planning provides comforts and conveniences for future generations, and that children yet unborn should be required to pay all or most of the cost. Recourse is had to bond issues in large sums and at liberal interest rates. A city's credit is at stake when it pledges itself to borrow money which it is not to pay back within a period representing the life of an improvement for which the money is expended. Interest mounts up alarmingly, taxes are increased to meet the added burden, payable not by future generations, but by the present one, which struggles along within restricted incomes because of the large sums which must be paid as interest or assigned to a sinking fund to care for the future payment of the debt.

Many improvements considered most desirable and beneficial under city planning are in no way self-sustaining, so that the problem of debt incurred is ever present. As a result, a city about to enter upon expensive improvements should carefully consider the means whereby funds are to be obtained to pay the costs of such developments.

Probably the most expensive item of modern city planning is street widening and extension. Inasmuch as adjoining and abutting property is enhanced in value, the laws of most states permit the municipality to assess back against the property benefited a certain portion of the cost involved. Some permit the condemnation of land in excess of the actual street requirements and its resale in order to help finance the improvement.

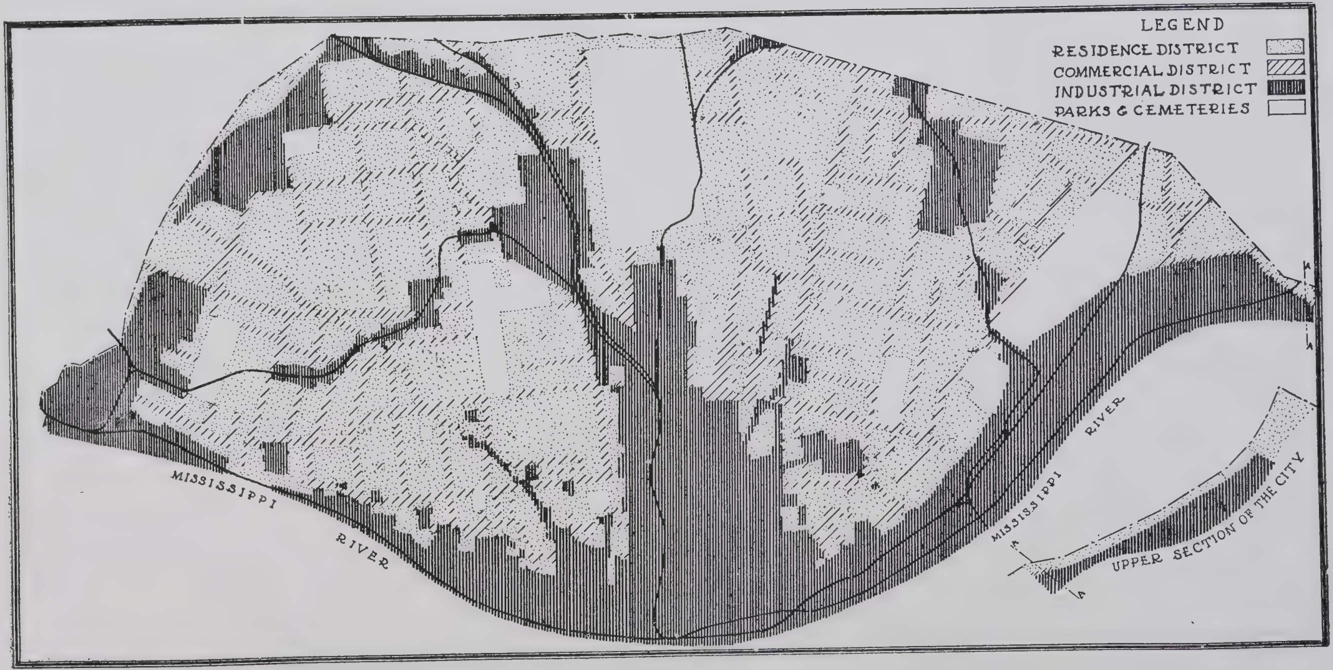
City planning can scarcely be begun at too early a date in any growing community; delay renders such a program increasingly difficult. Effort and money expended in this direction will



COMPARATIVE EFFICIENCY OF STREETS

An eighty-six foot thoroughfare takes but thirty per cent more land than the sixty-six foot thoroughfare, yet it is four times as efficient. It will pass twice the traffic at two or three times the average speed.

pay large dividends in the years to come by enhanced land values and the increased facilities adding to the convenience with which the inhabitants may carry on their various occupations and avocations.


LEGEND
RESIDENCE DISTRICT
COMMERCIAL DISTRICT
INDUSTRIAL DISTRICT
PARKS & CEMETERIES
MISSISSIPPI
RIVER
MISSISSIPPI
RIVER
UPPER SECTION OF THE CITY

TYPICAL ZONING MAP FOR A CITY

In preparing to zone a city, detailed maps like the above are prepared, and submitted for critical analysis by residents. Here is the City of St. Louis, and the manner in which certain portions of it are assigned for specific use.

CHAPTER 33.

ZONING

Zoning a practice of comparatively recent adoption in America—Copied from German cities—First important example initiated in America by New York which adopted its zoning law in 1916—History of the New York situation—What zoning attempts to regulate—Arguments used by those opposed to zoning—Zoning will decentralize property values—Zoning particularly desirable in suburbs of the large cities and in towns emerging into the size of cities—Problem one of control and efficient and honest administration—Zoning generally does not hinder a city's growth nor does it reduce its real estate values.

Zoning of American cities is an evolution of recent years and owing to the limited time it has been in general existence it is somewhat difficult to determine its effect upon city growth and land values.

The principle of modern zoning was adopted from the Germans. During the last half of the nineteenth century many experiments in municipal control and regulation were made in German cities, which always exercised rights over the use of land to an extent far beyond those of cities located in other countries. The police power of German communities was invoked to compel property owners to submit to various sorts of restrictive practices and the training of the German people was such that they readily acquiesced. There is little doubt but that through the autocratic means resorted to, many German cities improved their general outward appearance but doubtless to the detriment of some individual property owners.

The first important experiment in zoning in America took place, curiously enough, in its largest metropolis, New York City, where, in 1916 a drastic ordinance was made effective. Its purpose was to restrain certain practices and to serve as a control over future operations rather than to serve as a "cure all" for existing conditions.

Due to the encroachment of light manufacturing establishments in business sections it was discovered that retail trade was being steadily driven northward on Manhattan Island towards Central Park and that an area which was formerly the center of the city's retail business rapidly deteriorated in value through the encroachment of wholesale and manufacturing enterprises. Thus there was a steady drift uptown.

AN UNSIGHTLY NEIGHBOR

This gas tank, located in a residential neighborhood, detracts from values.

About 1910 a number of clothing manufacturers established new factories in the neighborhood of Sixth Avenue and Twenty-Third Street, which was then an active retail district. Men, mostly foreigners, were the principal employees of certain branches of the clothing business. These workers in increasing numbers, began thronging the streets during the noon and late afternoon hours so that it became difficult for shoppers to pass. This gradually caused many of the high grade stores in the neighborhood to move. Altman's, Stern Bros. and Best & Co., all prominent merchants, were among those crowded out. The decrease in land values was pronounced, dropping in some places from $20,000 a foot front to as low as $4,000 a foot front. Fifth Avenue, for several blocks below and above Twenty-third street was also affected. An organization known as the Fifth Avenue Association took steps that resulted in the creation of a zoning commission. Two and one half years were consumed in working out and submitting to the public the conditions of the zoning law which was later passed and rigidly enforced.

The law had the distinct effect of segregating the cloak and suit manufacturing business into a section of its own where suitable accommodations were built. The blight which had rested on the retail business districts was lifted and many contend the result has been the stabilizing of real estate values in New York City.

In principle the advisability of zoning of cities can scarcely be questioned. Different classes of business and industries are segregated to districts adapted to their needs. Apartments and double houses are allotted to other territories while areas for single houses are always provided.

Many cities throughout the country have enacted zoning laws and others contemplate their adoption. The principal features of the average zoning law embody the following:

1—Exclusion of trade and industry from essentially residential districts, different classes of which are definitely established.

2—Segregation of apartment and tenement buildings into areas selected for them, usually close to thoroughfares.

3—Permanent establishment of business streets on which commercial buildings only can be erected and maintained.

4—Barring of so-called nuisance and semi-nuisance industries from all sections of the city except areas especially selected for their use.

5—Definite selection of territories in which manufacturing of the heavier types may be conducted.

6—Permanent establishment of set back and building lines which may help in street widening plans to be enacted in the future.

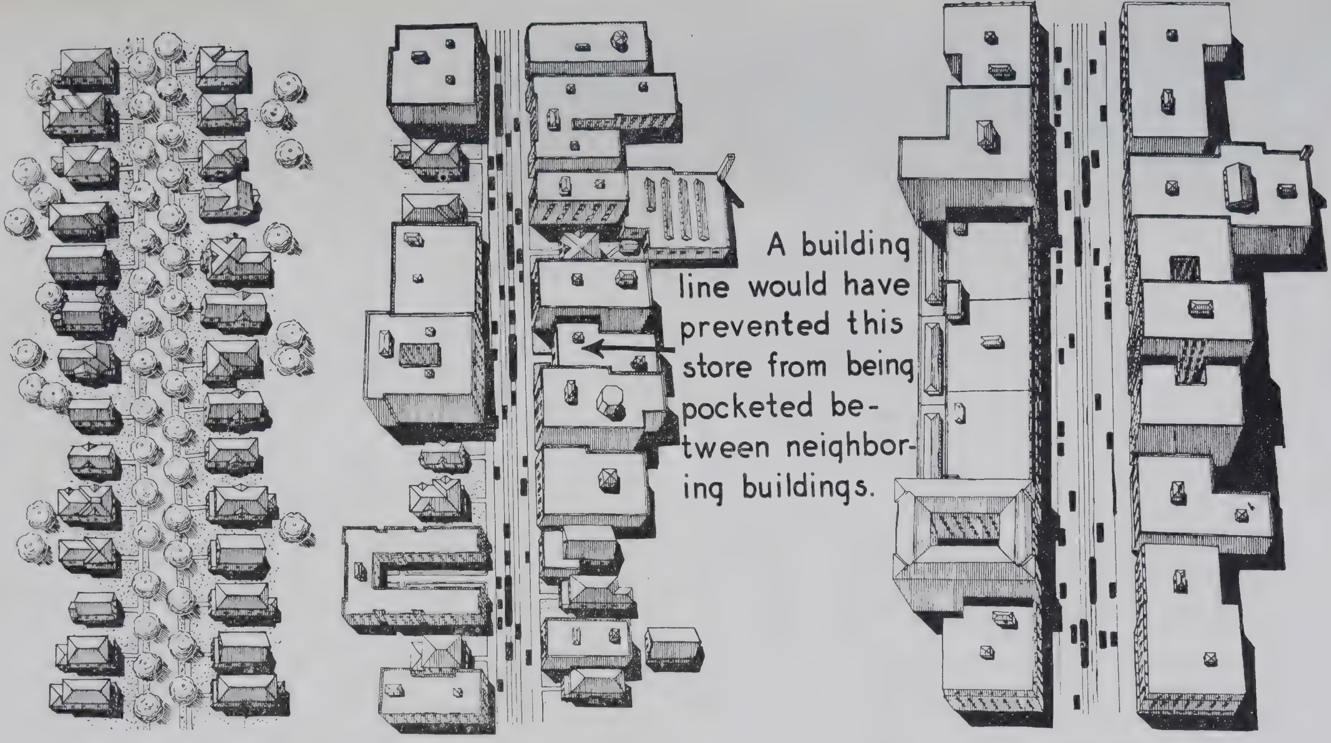
7—Limitations upon the height of commerical buildings, usually restricted to a height equal to the width of the street on which they are located. Sometimes a height of one and one-half times or twice the width of the street is permitted.

8—Regulation of the percentage of area a building may occupy on a lot, whether dwelling, apartment or business block.

Under a zoning law a small factory is not permitted to locate in the midst of a residential section. Neither can a garage or store building be built next to homes or apartment houses. The plan provides for the orderly growth of a city which should result in stabilizing values of each type of property according to its use.

WHEN BUSINESS INVADES A HOME DISTRICT

Detroit witnessed the erection of this storage warehouse in the center of a block given over to private dwellings. As far as restrictions were concerned, it might have been a glue factory or a foundry. Zoning advocates claim that proper restriction as to use would not have permitted such construction as this in a residential neighborhood, with its consequent destruction of values.


A building line would have prevented this store from being pocketed between neighboring buildings.

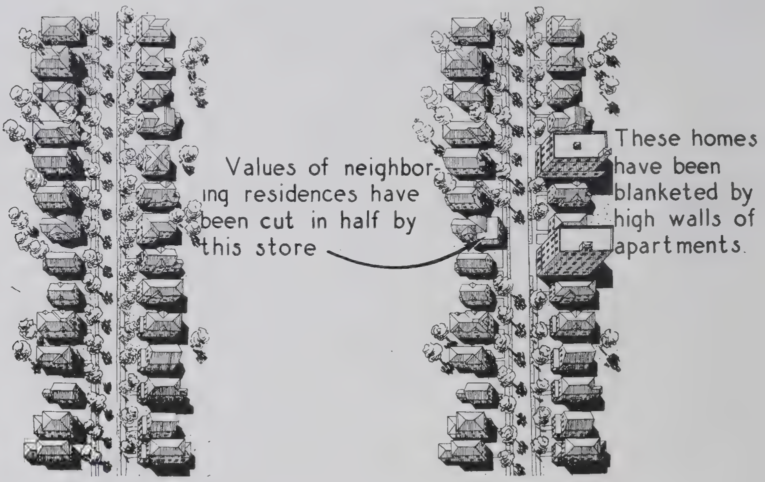
THE RELATION BETWEEN THE BUILDING LINE AND STREET WIDENING

At the left is indicated the average residential street just before passing into business use. Unless a definite building line is established before stores are erected, the street becomes a narrow congested one as indicated in the center diagram. By requiring owners to observe a building set-back line, a street of adequate width is eventually obtained, as indicated at the right, and property values are thereby enhanced.

Considerable opposition has arisen to zoning in certain cities throughout the country. The chief arguments used by the opponents of the practice are:

1—Zoning is un-American because it restricts individual initiative and limits the free use of property.

2—It attempts to control the use of property in rapidly changing districts without consideration for the rules which control natural growth.


Values of neighboring residences have been cut in half by this store
These homes have been blanketed by high walls of apartments.

THE REASON FOR ESTABLISHING A BUILDING LINE

High apartment houses erected out to sidewalk lines on residential streets cut off light and view from adjoining buildings. When the entire block is built up with similar apartments there will be no room for lawns or trees—nothing but pavements and bare brick walls.

3—Zoning is class regulation, controlled by politicians and demagogues.

4—It has a tendency to force rents higher than laboring classes can stand because fewer small buildings are erected for renting purposes, and larger ones are more expensive to construct because of restrictive conditions.

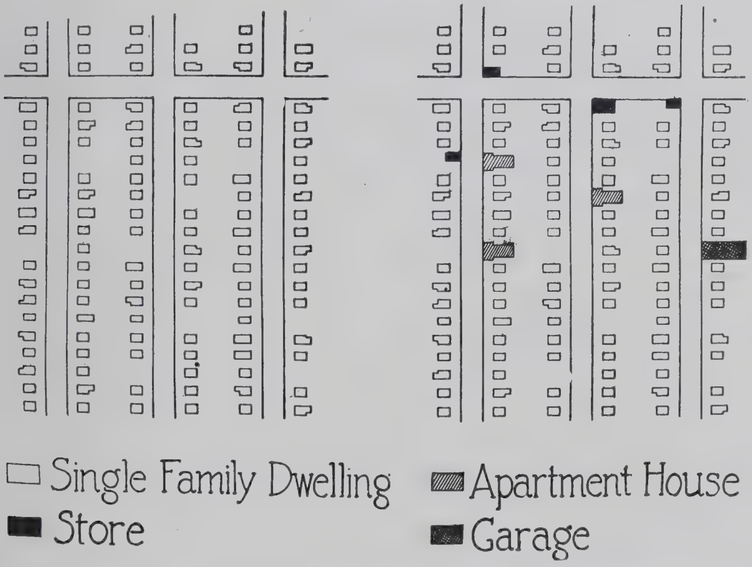
5—Residential districts now existing may be destroyed by the arbitrary act of a few men in charge of a zoning bureau.

6—Zoning will raise taxes for the home owner because it reduces the value of much downtown property.

7—Zoning confiscates property because it does not compensate the owner when the use allotted to land is for a different purpose than that to which it is being put.

8—It denies the owner the right to direct the use of his own property and arbitrarily dictates its future utilization.

9—Zoning curtails the growth of a city, putting it in a straight-jacket, thus destroying the individual initiative which has built cities in the past.



WHAT HAPPENS IN UNRESTRICTED NEIGHBORHOODS

On the left is a typical city block restricted to the erection of residences only. On the right is a block in an unrestricted district where all classes of business may rush in and endanger property values.

Generally speaking, the preponderance of argument seems to favor the zoning of cities. If a zoning law can be adopted by a city while it is still small in size, much opposition which often appears will not be encountered. The bitterest opposition is expressed by property owners in the larger cities who resent dictation regarding what they can or cannot do with their land. Personal selfishness is often at the bottom of the opposition of owners to zoning.

Zoning of business areas will have a tendency to decentralize congested business districts, for if it is impossible to erect an office building higher than a certain height it means that more office buildings must be built in order to meet the city's requirements.

The desirability of zoning laws in suburbs of large cities seems to be proven by the experience of many home communities where it has been tried. Retail business, manufacturing and nuisances are not allowed to creep into residential districts, destroying home values and undermining the elements of permanency and exclusiveness, which make residential districts desirable. The erection of a garage in a residential neighborhood immediately detracts from the desirability of the immediate vicinity for home uses. While the owner of the land on which such a building is erected may get more revenue, he does so at the expense of all of his neighbors who have invested in homes in the neighborhood.

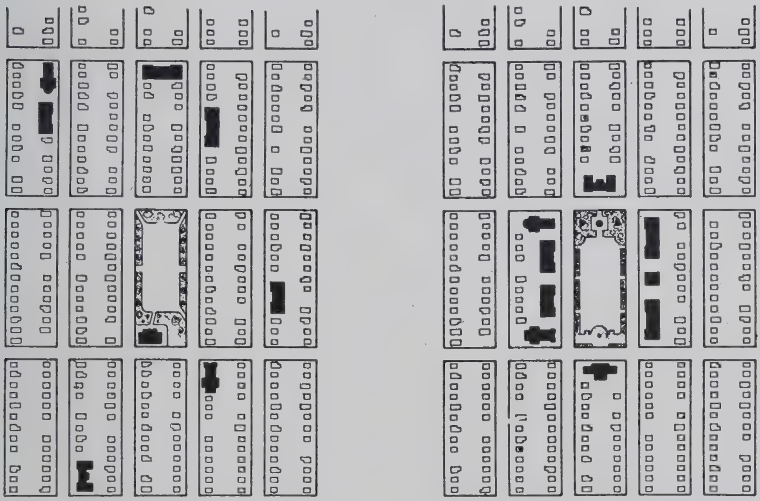
One of the great difficulties experienced in connection with zoning is the matter of the control given those persons charged with its enforcement. If they are not men of the highest integrity, possessing balanced judgment, evils may creep in to destroy the confidence of the public in the manner of the administration of the zoning plan.

Insofar as this discussion is concerned the two questions of interest are:

Does zoning help or hinder a city's growth?

Does zoning increase or lower real estate values?

The first question may be answered by the statement that the growth of those cities in which zoning has been effective has not been, apparently, checked in any degree. The right of a city to place certain restrictive measures upon the privileges of owners to use their property is one which public policy should, to a great extent, control. If promiscuous growth is detrimental and orderly growth desirable, and a zoning law accomplishes the latter object, then it seems that zoning, properly applied, would be beneficial rather than detrimental to any growing community. Selfishness on the part of a property owner who is determined to use his land for whatever purpose he chooses, should not prevent the accomplishment of a zoning plan, if the general interest of the community is thereby advanced. In the long run he is likely to fare quite as well under a zoning law and realize just as much from his property. Zoning laws are not retroactive. If a building exists in a neighborhood it is not destroyed, but is permitted to live out its economic usefulness. However, no other objectionable building of a similar character can be placed in the neighborhood, to the detriment of properties whose values may be affected by its presence.



GROUPING OF PUBLIC BUILDINGS DESIRABLE

On the left is a district where public and semi-public buildings are placed haphazard. On the right they are grouped about a central square or community center.

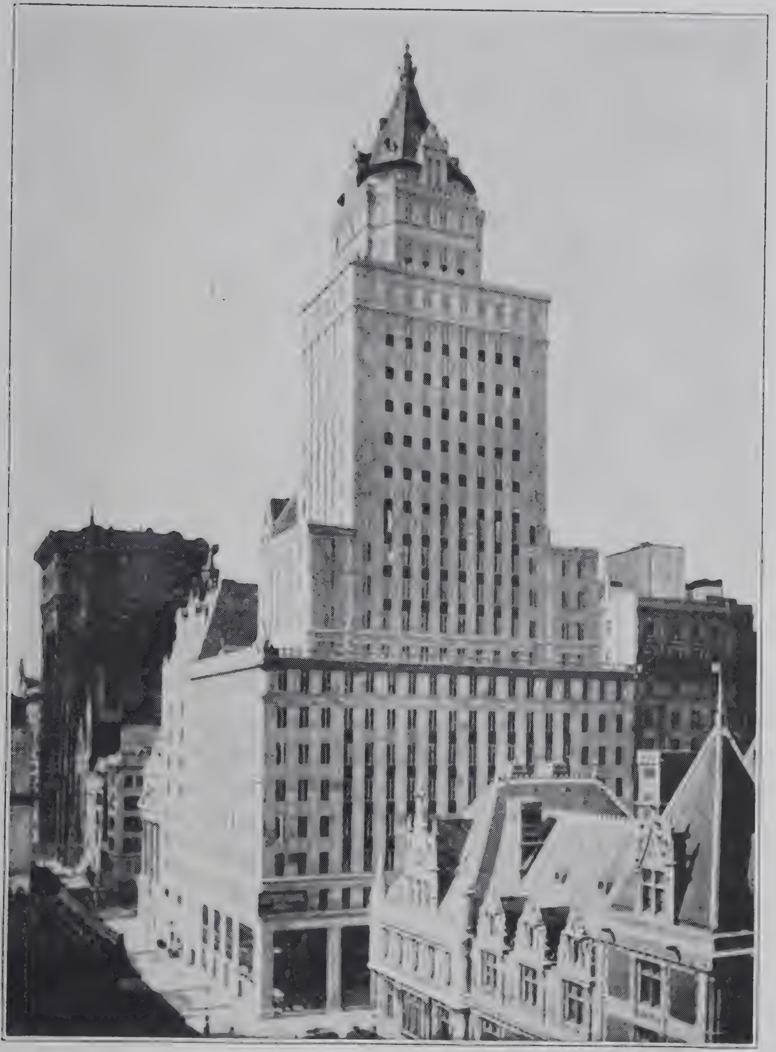
With reference to the problem as to whether zoning raises or lowers real estate values, it is difficult to believe that such a law, in its general application, can do other than raise values throughout an entire community, although in specific instances it may curtail the ambitions of property owners who hold lots near or in restricted sections who wish to use their land for a widely different purpose from that of the general neighborhood. Public welfare is paramount and the wishes of a few individuals to realize more from the sale or use of their properties for uses foreign to the character of the neighborhood should not interfere with the general application of that principle.

It is significant that in cities where zoning laws have been made effective there has been great real estate activity in certain sections. Home neighborhoods which had no protection from business encroachment have taken a sudden spurt and have built up rapidly as soon as it was apparent that only residences were to be allowed therein. Likewise, as soon as certain streets were designated as business thoroughfares thus creating a limited amount of business property to be allotted to each section of the city such streets were bound to become, sooner or later, important retail arteries, restricted permanently for that use.

Controversy arises where zoning laws are made effective as to the amount of area a building may be given in proportion to the size of the lot on which it is erected. From the standpoint of health, sanitation, fire hazard and general comfort this type of restriction comes within the power of public control. It prevents congestion and consequent fire hazard and diffuses values because it brings into use other land which will be needed to care for an increasing population.

The New York zoning ordinance is typical of zoning regulations which are being adopted by many cities, though substantial variations occur in different laws. It is interesting to note the structure of the New York ordinance.

The city is divided into districts, which are established for the purpose of regulating and restricting the location of trades and industries and of buildings designed for specific purposes. In residential districts, dwellings, clubs, churches, schools, libraries, hospitals and sanitariums are permitted. In business districts certain specified types of industries are excluded in addition generally to all others which are obnoxious or offensive by reason of the emission of odor, dust, smoke, gas or noise, and other industries which occupy in excess of 25 per cent of the total floor space of a building. In unrestricted use districts there are no limitations. Existing uses are not disturbed.



LARGE NEW YORK BUILDINGS HAVE "SETBACKS"

The zoning ordinance of New York provides that after buildings have risen to certain heights there must be a setback, so that light and air may descend to the crowded thoroughfares below. This is an example of such a building with several setbacks.

Height districts of three-quarter, one, one and a quarter, one and a half, two, and two and a half times the street width at the street line, are created, a greater height being allowed as setbacks are provided.

Area districts provide for the size of yards, courts, and other open spaces for buildings erected after the passage of the ordinance. These provisions limit the amount of land which the building or buildings upon a given lot can cover.

For years American cities have in some form limited building construction by ordinances known generally as building codes. The areas over which a building could be constructed have been limited by most municipalities to 90 per cent building occupancy as the maximum for corner lots, ranging lower for inside parcels. Many cities adopted height limitation for buildings in business districts long before zoning ordinances as such were known in America.

It is a practical necessity that zoning be done under the police power of the state without compensation to owners. In a few cases statutes have been passed authorizing zoning by eminent domain with damages to those claiming to be injured, to be assessed upon those who have been benefited. Little zoning has been done under such statutes because of the extreme expense involved.

Local governments, in order to pass valid zoning ordinances must possess the police power of the state in sufficient measure for the purpose. Municipalities in the United States have only such powers as each state has given them. The constitutions of some states are more liberal than others. In Ohio under the home rule provisions of its constitution courts have held that cities have the power to zone although so far no court of last resort has passed upon the question.

Zoning by race or color is invalid under the United States Constitution. Building regulations under police power of a state necessarily limit the land owner more or less in the manner in which he can use his land, and for these limitations no compensation is provided. The validity of zoning laws whether general throughout the city or varying by districts, is dependent upon the question of whether they are constitutional. If constitutional, courts usually inquire further into whether the regulations are reasonable and justifiable under the powers granted to the city under the police power. Courts of different states have passed in various ways upon zoning laws. Perhaps the greater majority have held zoning to be constitutional when exercised reasonably.

Zoning apparently does not limit a city's growth nor does it decrease, on the whole, its realty values.

CHAPTER 34.

ELEMENTS WHICH HELP AND HINDER GROWTH

Civic organizations help to crystallize popular and efficient ideas and put them into effect—Real Estate Boards and Associations of Building Owners and Managers, play an important part in city building—Public service corporations now eager to give efficient service—Arbitration of labor disputes, recommended by civic bodies, helps avert disturbances—Mass campaign work among organizations valuable—Civic and private foundations play their part—The city manager plan adopted by many cities—Clean and efficient city government gaining in favor—Great convention halls useful—Cheap power and natural gas helpful in establishing new industries—Abolition of liquor traffic caused saloons and breweries to be put to more useful purposes.

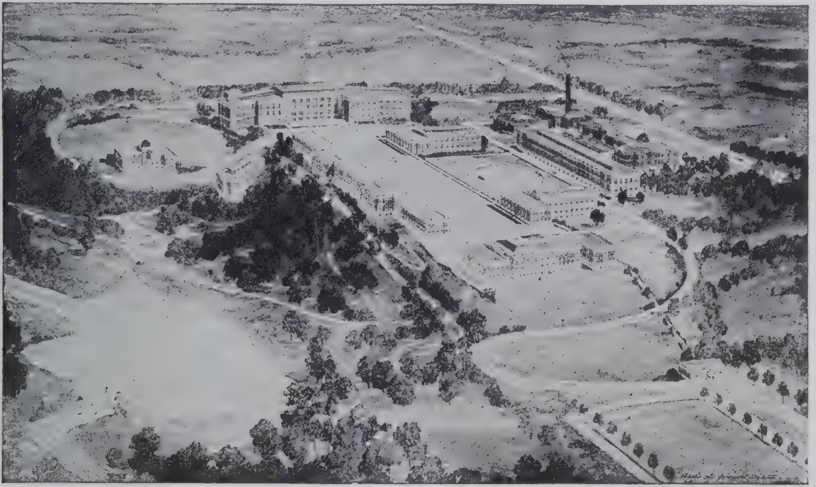
Attitude of the general public as represented by its civic organizations does much towards city growth.

Chambers of commerce, Rotary clubs, real estate boards, building owners' associations, and a host of other organized bodies of men and women reflect the public mind and the civic spirit of the inhabitants of a city generally. As the city becomes large and unwieldy such influences are not as effective as in the smaller community where individual contact is preserved. It is in the very large cities where municipal government finds itself most involved.

Local improvements and movements tending to make the city a better place in which to live are sometimes born in the minds of individuals who usually find it desirable to present them to the public through the instrumentality of leading civic bodies. With executive heads, secretarial staffs, and adequate personnel in the way of committees an organization can adopt a plan, develop and embellish it and turn it over in a finished state to the legislative and executive bodies of a city government to put into effect.

Many a city has been carried up from the mediocre class through the work of one or more active associations of the kind indicated. Real estate boards are vitally interested in city growth, as it affects values and a local board is usually at work formulating a program of municipal expansion. The influence of a live real estate board is always effective.

Another organization which has a powerful influence in moulding public opinion, especially in the larger cities, where large office and commercial buildings exist, is the Association of Building Owners and Managers. Being solely a business organization conducted for the purpose of making close studies of those elements which have to do with the operation of large buildings, the local branches of this body make most exhaustive surveys of conditions having to do with city growth and its effect on real estate values.



BIG BUSINESS VISIONS THE FUTURE

Great corporations are spending millions of dollars in experimental work to improve their products, and widen their use, so that factories may grow to give work to more men and city life be made more comfortable. Here is Nela Park, a beautiful estate of 116 acres in Cleveland, where 1500 persons are employed under ideal conditions, experimenting and testing apparatus made by The General Electric Co. It is, probably, the foremost example of its kind in the world.

Property owners themselves have at heart the best interests of municipalities and their suggestions are listened to with respect and often adopted and made effective, when they are represented by associations founded for the furtherance of their ideals.

The attitude of the managers and directors of public utility corporations is important for through the operation of commercial enterprises is furnished the service given to home owners and business men. Public utilities, which a decade or two ago operated under the direction of the well known motto ''the public be damned'' have reversed their policies within the past few years and are attentive to suggestions for the interest of the general public. For the most part public service corporations today are furnishing a better and higher grade of service than ever before in the history of American municipalities.

Transportation, telegraph, lighting, gas and water companies are now anxious to adopt methods that give dollar for dollar in service rendered. Their employees are instructed to listen courteously to complaints and to correct them whenever possible, even at the expense of the companies.

Telephone companies, in planning to give the highest type of public service are doing much to ascertain by means of careful surveys the probable growth of cities for the period of the next fifty years. In nearly all of the larger cities special survey departments are maintained with expert engineers in charge, who spend months working out estimates and surveys of probable growth in different sections. Information is gleaned from every possible source and then condensed with every effort towards accurate prediction. Business men often follow these surveys with great interest, believing that they mark tendencies of city growth which are revealed in no other manner.

Arbitration is resorted to in many cases at the behest of the city's organizations or city council when labor disturbances are threatened. Both capital and labor recognize the impelling force of public opinion and attempt to keep well in line with proper practices.

Co-operation and mass campaign work during the liberty loan campaigns, waged in every sizable city during the Great War, taught many lessons which are reflecting themselves continually in modern city life. New improvements are sponsored by ''Committees of One Hundred Organizations'' instead of by a few enthusiastic persons upon whom the burden formerly rested. Great community drives for charity and welfare work are conducted in like manner, it now being accepted that poverty is a civic and not an individual liability.

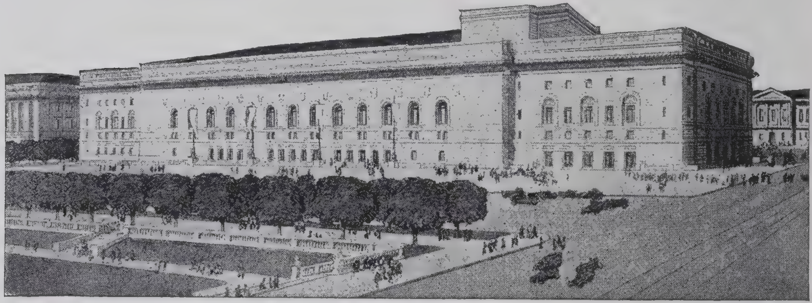
An entirely new type of organization which promises to have great future influence in elevating the standard of city life is to be found in The Carnegie and Russell Sage Foundations, the Cleveland Foundation, the New York Community Trust and other similar ones which are being organized or endowed from time to time. The Cleveland Foundation, for instance has been in existence since 1918 and has been instrumental in conducting valuable surveys on public education, criminal justice and similar matters. Many interesting and valuable recommendations have been put into effect in Cleveland as the result of the work of this foundation. It is financed by contributions of wealthy citizens who wish to have their money perform a public service. The Cleveland Foundation will, in the course

A MODERN VESSEL TERMINAL

Companies operating passenger steamers are learning the value of attractive terminals, of which the above is a fair example.

of the next several decades, come into possession of millions in money, willed to it by wealthy contributors.

American cities, which have been groping about for a generation or more for a solution of the problem of better government seem to have found it, in part at least, in the adoption of the city manager plan. In 1923 there were more than 320 American cities operating under city managers. While few large cities have adopted it, due in part to opposition on the part of politicians, it has proven that it has real merit, resulting in efficient city management at less cost and eliminating many of the evils of the old systems. It is noteworthy that most cities having managers have been saving money under the new plan, and at the same time rendering better service.



A MODERN CONVENTION HALL

This great municipal auditorium, costing $8,000,000, built at public expense, attracts to Cleveland annually thousands of visitors who spend their money freely, enjoy themselves, and are impressed by the good qualities of the city. Every large community now finds a building of this character a fine civic asset.

Clean, efficient local government helps a city to grow and prosper. Business men are attracted, thereby creating new real estate values by virtue of employment given to men working in new plants.

Facilities for holding public gatherings such as conventions and exhibitions are conducive to the growth of a city. Thousands of people are brought to a community some of whom later return to make the place their permanent abode. What the great convention halls in Cleveland, Chicago, Milwaukee, St. Louis, Denver, San Francisco and other cities have done in the way of attracting favorable attention to the communities in which they are located cannot be estimated. It is quite certain they are well worth the investment in spite of the amount involved.

Cheap electric power, available in communities where an adequate labor supply is obtainable and properly housed, is a boon to any city. Los Angeles has increased its manufacturing business rapidly in the past few years because of the availability of cheap electric power created by water power in great plants located in the distant mountains. Cities now manifest an eager

WHERE MULTITUDES MINGLE

Fifteen thousand persons may be comfortably seated in this beautiful auditorium of the new convention hall in Cleveland. It contains a $100,000 pipe organ, a mammoth stage, and can easily accommodate a three ring circus. In the basement is a large exhibit hall, about the same size as this one, which provides several hundred booths for exhibition purposes.

interest in any logical water power development which promises cheaper electric current for the manifold purposes for which it is now used.

Low priced natural gas is another commodity which can help build a city. Many manufacturing towns in Ohio prospered wonderfully between 1900 and 1920 because of cheap fuel obtained from natural gas pumped hundreds of miles from West Virginia.

Waterside resorts and bathing beaches, whether on ocean or lake, when in close proximity to a city, help it grow for many people from inland points come to seek recreation and later locate there.

Prohibition of the liquor traffic has been a blessing to cities in the United States. Thousands of men who formerly squandered their money began saving it, building homes and becoming better citizens. Merchants are patronized more liberally, bills are paid more promptly and what is of more importance, the behavior of the inhabitants has improved and crime has decreased.

Within three months after prohibition actually went into effect the whole complexion of certain business districts in some of the larger cities changed. Valuable store locations, used for years as saloons, were leased to productive businesses, rentals increased and property values were visibly enhanced. Scores of large brewery properties were revamped for other uses, such as the production of various kinds of food products. Real estate which brewers owned and which was being used for saloon purposes increased so remarkably as a result of the general rise in values which followed the Great War that many brewers themselves became worth in despite of the abolition of their business, as much or more than ever before. In a number of well known instances they went into the real estate business on a large scale. In New York, Chicago, Cleveland, Detroit and other large cities saloon properties were vacant scarcely between the time they were vacated as saloons and occupied by business of a better economic use.

To grow, a city must be progressive. It must adopt new laws conceived for the purpose of bettering the city and its inhabitants. While so-called "junkets" at public expense often are decried in the public press as a waste of public money it might not be a bad idea if cities followed the practice of large baseball clubs, which hire "scouts" who travel from city to city seeking new material for their teams. Would not a civic "scout" be of value to any city in learning the newest and most modern practices to be followed in making a city efficient and keeping its public functions abreast of the times?

CHAPTER 35.

HOW LARGE SHOULD A CITY BE?

Is quantity or quality of population the question of most concern?—Size of cities may be checked by restriction of immigration, and distribution of new immigrants to rural sections—Ford's theory of many small industrial centers—Problems of the municipal engineer multiplied as cities grow—Manufacturers being driven out or avoiding large cities on account of high land values, and consequent carrying charges—Tax rates in cities mounting alarmingly—Flow of population to cities due to economic reasons—Sociological problems increase as cities expand—Influences which may tend to check city growth.

It isn't the streets nor the buildings that are reared 'neath prosperous skys,
Nor the domes, with their splendid gildings that we truly revere and prize;
Houses may fall, their wreck may strew the place with misfortune's frown,
But a great voice cries, 'We will build anew!' It's the people that make a town!
—Selected

Is it desirable that there be a limit to the growth of modern cities? If economic conditions force a suspension of growth in large communities, what will be the effect on realty values?

Do indications point to a decentralization of population through the inability of large cities to properly accommodate the increasing throngs which seek to live within their borders?

City pride manifests itself in unmistakable form when new census returns are announced, and it is learned that a city has shown a growth of many thousands in population during the preceding decade. Whether the addition of human beings has been of a desirable type, whether they are well housed, and are otherwise adequately provided for, seems not to concern the city booster who prates merely of population. Quantity, rather than quality, seems to be the standard of most cities when seeking to advertise their glories.

Evidences now indicate that the mad rush of cities for population will be checked by various influences during the next generation. The new restrictive immigration law of the United States is regulating the influx of old world people seeking homes in the western hemisphere. Restriction as to numbers admitted to this country has checked the flood of humans seeking homes in the foreign sections of large cities. This has further reflected itself in a shortage of common labor resulting in increased wages, and has proven a spur to inventive genius in devising means of doing more work by mechanical means. New types of labor saving machinery have been widely adopted on farm, and in workshop. Higher standards of living have resulted, and much drudgery is now done by dumb workers made of iron and steel. All this may be counted an economic gain.

Henry Ford has advanced a rather novel suggestion as to controlling the size of cities. He proposes to have many small cities, placed not too far apart, where the industrial activities of the country may be carried on. Small community life would afford an opportunity for workers to devote enough time in their gardens to raise a portion of their food requirements. Farmers, now engaged by necessity in a seasonable occupation, to some extent could find profitable employment in the industrial centers during that portion of the year that their farming activities are curtailed by cold weather. When labor on the farm was needed, the ''town'' dwellers would furnish a supply until the peak of the load had been passed. Large wages paid in factories located in large cities have robbed the country districts of many of their young men and women. The urgent need of today seems to be some influence which will cause farm life to be more attractive and farming more profitable. Mr. Ford's plan might help to relieve conditions.

Is there a point where cities may profit by cessation in growth? The problems of the municipal engineer in great communities like New York, London, Paris and Chicago are quite apparent. Tremendous quantities of pure water must be kept always available for instant use. Huge sewage systems must be created to carry away refuse, and preserve the health of the inhabitants of the community. Transportation problems of the city increase as it increases in population. Fire and police problems likewise become more difficult to solve. It is well known that the safest place on earth for a desperate criminal to hide is in the dark haunts of a great city.

Industries in large cities are often badly handicapped as cities grow constantly to greater size. Land becomes increasingly valuable, and taxes mount to sums which stagger those engaged in the production and manufacture of the goods of the world. The problem of securing an adequate supply of labor to man the shops becomes greater and results in increased wages over those paid in the smaller cities of the country, where living conditions are better and cost of living less.

With the massing of great numbers of workmen in one city, radical elements gain larger representation and power and labor disturbances are more easily fomented.

The cost of living, always higher in large cities, requires that higher wages be paid for all kinds of human labor. This handicaps certain kinds of business, which are in keen competition with like businesses located in small cities, where workers are more easily obtained, who are willing to accept lower wages. Living costs are correspondingly lower in small cities on account of the presence nearby of a larger proportion of farmers able to furnish food supplies at lower unit costs.

Mounting tax rates in all large cities have a tendency to keep out new industries, or drive out old ones, which select smaller communities for plant locations. Tax rates of the larger cities have increased greatly during the past generation.

In 1923, the city of New York reported an annual municipal budget amounting to the stupendous sum of $353,350,970. This had risen from $211,114,136 in 1917.

The following table, as of Jan. 1, 1923, gives an idea of the tremendous burden under which American cities are laboring in the way of bonded indebtedness:

COMPARATIVE BONDED DEBT OF THIRTY-SIX CITIES, AS OF JANUARY 1, 1923

City	Census 1920	Sinking fund	Net total bonded debt	Per capita net debt	Rank
New York	5,620,048	$644,563,884	$1,085,596,501	$193.13	4
Chicago	2,701,705	736,000	112,617,800	41.68	32
Philadelphia	1,823,779	54,859,535	195,306,015	107.09	14
Detroit	993,678	10,429,274	131,730,656	132.56	9
ClevelandC	796,841	15,249,595	107,851,929	135.35	7
St. Louis	772,897	9,995,000	12,972,000	16.79	35
Boston	748,060	42,599,632	84,040,919	112.34	11
Baltimore	733,826	37,517,342	79,910,537	108.89	12
Pittsburgh	588,343	3,431,200	54,720,700	93.03	19
San Francisco	506,676	2,513,600	68,494,800	134.72	8
Buffalo	506,775	5,391,560	46,200,062	91.16	20
Milwaukee	457,147	3,478,923	24,271,577	53.09	29
Washington	437,571	4,544,872	156,328	0.36	36
Newark	414,524	12,537,688	43,746,012	105.25	16
Cincinnati	401,247	23,796,745	76,316,486	190.20	5
Minneapolis	380,582	3,012,434	34,499,672	90.65	21
Kansas City, Missouri	324,410	6,169,785	15,513,215	47.82	31
Seattle	315,312	572,058	54,572,442	172.89	6
Indianapolis	314,194	1,033,262	17,231,588	54.84	28
Rochester	295,750	3,032,917	25,683,103	86.84	24
Portland	258,288	2,855,148	25,391,052	98.30	17
Denver	256,491	136,596	22,647,004	88.33	23
Toledo	243,164	5,713,660	25,819,309	106.20	15
Providence	237,595	13,305,510	15,486,490	65.18	27
Columbus	237,031	9,257,493	23,209,323	97.91	18
Louisville	234,891	2,080,975	11,959,925	50.92	30
St. Paul	234,698	1,535,379	16,500,621	70.34	26
Akron	208,435	2,087,039	22,544,387	108.16	13
Atlanta	200,616	2,032,584	5,761,416	28.71	33
Dayton	152,559	2,160,296	11,126,984	72.33	25
Grand Rapids	137,634	2,623,414	3,903,286	28.36	34
Des Moines	126,468	82,975	14,287,584	112.97	10
Norfolk	115,772	3,273,070	23,920,930	206.60	3
Duluth	98,917	343,310	8,779,690	88.75	22
Toronto, Canada	529,083	30,031,848	115,055,731	217.46	1
Montreal	618,506	13,645,912	129,071,209	208.36	2

An indication of the resentment against higher taxes is reflected in the attitude of many suburbs of cities. While they naturally form component parts of the larger communities and are located within what is termed the metropolitan area they refuse to approve of annexation because of higher tax rates, and inefficient city management.

An evidence of the tremendous tax burden under which the people of America are laboring is indicated by a report issued by the United States census bureau covering governmental costs for the year 1922. It stated that the per capita cost of government in this country is approximately $100 if the burden were equally distributed over all persons. That is, a husband and wife, with three children, contribute on the average $500 a year in taxes. It stated further that there are families of this size which are earning a total income of not more than $500 per year. It is obvious that wealthy corporations and individuals must bear the brunt of heavy taxes.

The cost of the federal government, per capita, was given at approximately $40. The cost of state government ranged from $7.71 in Kentucky to $24.07 per capita in Michigan, while the cost of city government ranged from $23.95 per capita in Birmingham to $75.63 in Rochester. Most of the cities average around $60 per year.

Figures given for some of the larger cities for 1922, compared to the per capita cost in 1914 and 1915, were as follows: San Francisco from $52.93 to $63.08; Jersey City, $34.24 to $68.41; Rochester, $33.49 to $75.63; Grand Rapids, $26.83 to $51.49; Birmingham, $17.06 to $23.95; Dubuque, $24.61 to $46.63; Providence, $34.80 to $60.44; New York, $47.61 to $66.66 and Louisville, $26.81 to $33.53.

In larger cities, the personal element of government becomes almost extinguished. Comparatively few persons know their public officials. At the polls they vote blindly because of their inability to know the qualifications of candidates. Undesirable characters slip into office and a low grade of administration often prevails, a type interested in spending as much of the taxpayers' money as they can without being discovered and rebuked or punished.

People have flocked to cities during the past century largely as the result of economic conditions which make it possible for workers employed in manufacturing plants to earn more wages than it was possible to procure from farm labor. The younger generations have deserted the old homesteads and migrated to streets with bright lights, theaters, dance halls, picture shows, and gaudy allurements of city life. The cost is reflected in the steadily mounting prices paid in rent and living commodities. Cities have filled up with middlemen, distributing necessities to the masses of humanity. This means that fewer persons are producing goods, which is economically unsound unless the balance between production and consumption is maintained.

Economic conditions have, in part, checked the growth of cities in that manufacturers requiring large areas of land have been compelled to avoid cities where land is high priced. Small towns have benefited and have grown into sizable cities. This tendency will be felt more and more. Many very large industries now prefer to select a large tract of very cheap land, and create their own towns. Gary, Ind., was the result of such an inspiration on the part of the steel interests.

Illiteracy is the price paid, in part, for rapid city growth. The 1920 census indicates conclusively that some cities in the United States showed increases in illiteracy as compared to 1910. Instead of enjoying the result of improved educational facilities furnished lavishly and without cost to the scholar in almost every instance, the percentage of illiterates in many cities increased. Akron's percentage increased from 3.0 per cent to 3.5 per cent; Bridgeport from 5.4 to 6.9; Chicago from 4.5 to 4.6; Lowell from 6.0 to 6.9; Rochester from 3.8 to 4.5; Seattle from 1.1 to 1.5, and so along the line of cities where immigrants from Europe had congregated between the years of 1910 and 1920.

Public service, in the way of water supply and sewage disposal, has its problems multiplied by growth, especially as the city becomes very large and unwieldy. New York has been compelled, at a cost of scores of millions of dollars, to bring pure water from far distant points. For fear of contamination, sewage facilities have had to be greatly increased, and disposal system built at tremendous cost. Yet, it can scarcely be said that the sanitary conditions of the large cities excel those of the smaller ones where the solution is comparatively simple and much less expensive.

Sociological problems are much more complex in the larger cities than in the small ones. Crime breeds more readily, and the extreme between poverty and riches is emphasized. Neighborliness is almost unknown, and people live alongside of each other in dwellings or apartment houses for months, or years, without becoming acquainted. Great agencies for the conduct of welfare work are established and maintained by enthusiastic community campaigns.

It cannot be denied that the tide is still cityward and that urban populations are increasing but what the future has in store no one can tell. It seems probable, however, that tendencies will develop towards the duplication in smaller communities of the great beehives of industry and commerce which large cities have become. Large cities, doubtless, will continue to prosper, yet, if the ratio of growth during the past half century is maintained during the next fifty years, the problems and complexities of urban life will become so great that they will be almost unsolvable. For that reason, therefore, it seems likely that there may be a definite slackening in the rate of growth of our largest cities during the next several generations, and a reaction in favor of rural life.

It is well recognized that people and their activities in the daily routine of city life create and maintain real estate values. There is a constant crowding out of one kind of business in favor of another which can pay the higher rental. That this can continue indefinitely seems unbelievable. There must be a limit somewhere in the amount of money merchants can contribute to the landlord's account. The decentralizing of business districts by means of the creation of new outlying commercial centers is having and will continue to have a leveling influence. If a merchant cannot prosper and pay high rent downtown, the natural thing for him to do will be to move out near the homes of his customers. Perhaps his percentage of profits in the outlying district will be as large, or even greater, than when down town where expenses consumed a large share of his profits.

If much retail trade deserts downtown districts because of high rents, there will be a marked decline in values. It seems as if the peak had been almost reached in some of our larger cities, yet the eagerness to obtain stores in one hundred per cent sections makes one wonder if the revolution is not yet some distance away. It would be the part of wisdom, however, for landlords to proceed carefully and not carry their demands too far, for they may force a change in the manner of conducting retail business, which may tend to reduce the practice of seeking locations in the highest priced sections of business districts.

According to official reports of the United States census bureau, there was a total population in this country in 1920 of 105,710,610, of which 54,304,603 was urban, living in cities and towns, and 51,406,017 was rural population. In 1910, the urban population was 42,166,120, and the rural population 49,806,146.

In the brief period of ten years the balance swung over for the first time in our national history to where more Americans lived in towns than on the farms. The United States has ceased to be a farming nation, and has become chiefly urban. Doubtless, this is responsible in part for advanced costs in living. A nation with most of its people living in cities and engaged in industrial occupations must be fed by the minority tilling the soil.

Three things may help to swing the pendulum the other way:

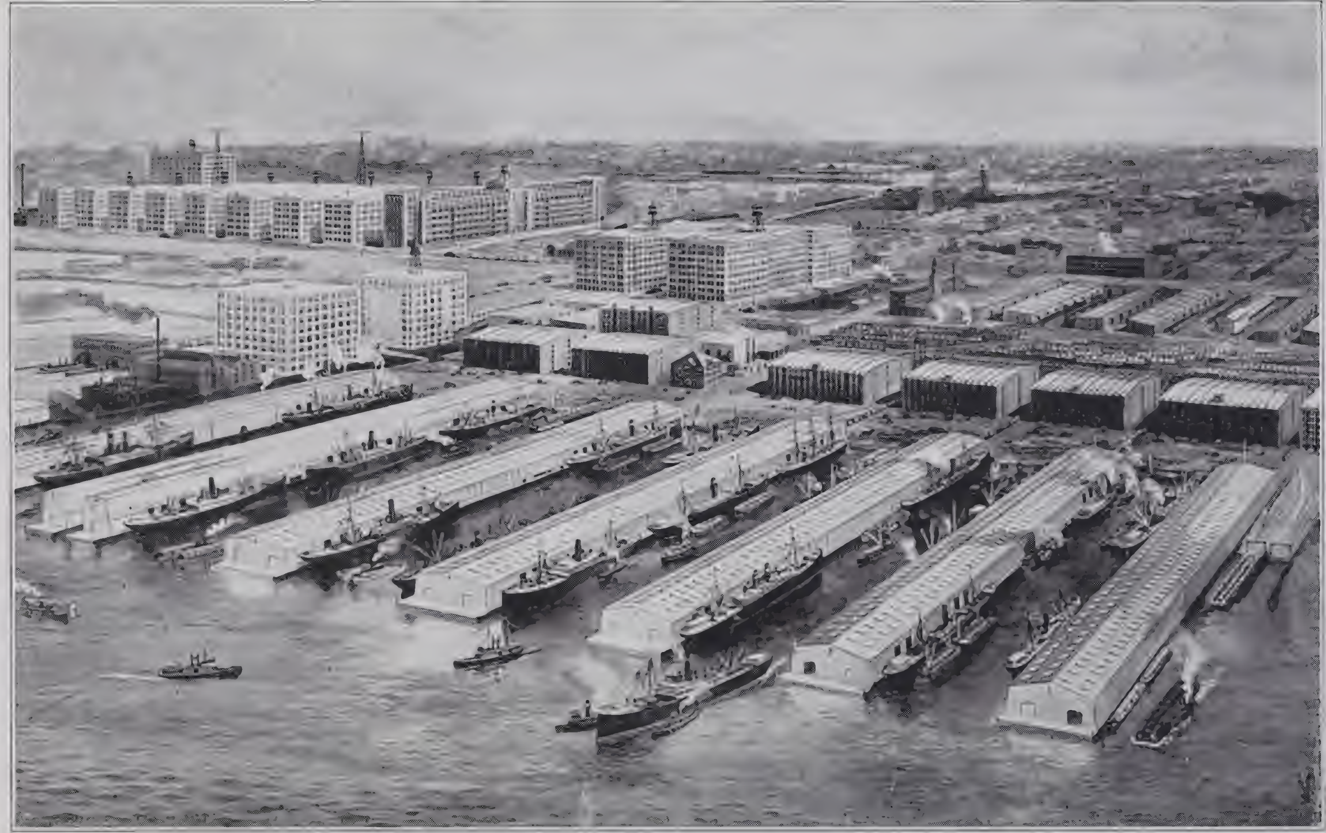
1—Intelligent distribution of immigrants to farms.

2—Improvements in living conditions in rural sections, thereby inducing people to live on farms.

3—Distribution of many city workers into homes in rural districts through quick transportation, such as furnished by the automobile.

Great cities offer few advantages that cannot be obtained in smaller communities, and much that must be endured by those who live in these large centers of population is actually detrimental to good health, morals and comfort. The problem of diverting population away from large cities is one that has not been solved. It is apparent that serious study must be given the subject before conditions become too grave to rectify. The American people have demonstrated that they can overcome almost unsurmountable difficulties, and it may even be that they can make life in very large cities bearable and enjoyable for all classes of people.

The ultimate solution of most city problems relating to the social relations of its inhabitants depends upon the spirit of neighborliness imbuing the hearts of its people. Some cities have prospered and are favored because they, more than others, possess what has been called "a civic sense." Perhaps we need more "cities with a conscience" before the ever pressing problems of urban life can be satisfactorily solved.



THE BUSH TERMINAL, BROOKLYN

The Bush Terminal, located on the Brooklyn side of New York Bay, is probably the most outstanding example of an industrial development of its kind in the world. In addition to a number of docks, where deep water vessels may load, there is a large development of warehouse and factory space.

CHAPTER 36.

BUILDERS OF CITIES

Modern real estate developments an evolution of the past twenty-five years—How enterprises covering vast fields have come into being—Keeping pace with modern demands for homes and business places—The real estate operator the man of vision—Local and national associations approve and enforce higher ethical standards—The city builder of America is the Realtor.

Real estate men are the city builders of modern times!

Assuming the places of kings and emperors, who fostered and promoted the growth of ancient cities, the real estate subdivider and the business district operator now sway and direct the future of towns and cities in the making.

Real estate development such as witnessed in the present day city is an evolution of the past twenty-five or thirty years. Fifty years ago in the larger cities subdivisions were marketed by individuals who seldom platted more than a few acres at a time, lots in which were sold in a leisurely and prosaic manner. Lot buyers contracted directly with carpenter contractors to build their homes. Good value was given by the subdivider and the sturdy houses of half a century ago are still standing as mute testimony of the honest workmanship of their builders. Out of date in architecture and conveniences, it is true, but still sound and as trustworthy as the day they were erected.

Then came a period for a few years when operations began to grow. The real estate man saw opportunities to do business in a large way so that for the past decade or two real estate development has expanded from a small one man affair to expert operators and great corporations which function on a large scale.

Hundreds of acres are sometimes included in modern allotments. Building operations often are conducted by the same company, not so much for the profit from building but rather for the purpose of establishing the character of the subdivision, enabling the promoters to sell land to desirable residents at proper prices.

The same is true in commercial and industrial enterprises. Great store and office buildings involving the expenditure of millions in capital are promoted by individuals or firms year after year as the demand is apparent and the market provides capital and working materials at reasonable prices. Great warehouses and rail and water terminals are promoted in the same way, enabling business in America to enjoy the highest type of working facilities to be found anywhere in the world.

The change has come as a natural evolution in business. Fifty years ago a home consisted of four walls and a roof with some gingerbread ornamentations on the outside and very little on the inside but bare walls. Stoves were used for heating and oil lamps for lighting. The use of electricity for lighting, cooking and other wife-saving purposes was unknown. Bathrooms were rare. The first bathroom in the United States was installed in Cincinnati in 1842. The newspapers denounced it as a luxurious and undemocratic vanity. Philadelphia the same year, undertook to prohibit bathing during winter months. Refrigerators were unheard of. The family pump was still supplying water and sanitary sewage facilities were afforded in only the best sections of a town.

Today all this has been changed. The poorest mechanic's family has a bathtub. Every city house, however humble, has its electric lights. Ice is delivered to the refrigerator in the smallest cottage. Telephones are available everywhere. Paved streets abound and regulations prevail in most cities prohibiting building operations of any kind unless the premises are supplied with water and adequate sewage facilities.

Real estate men have contributed much towards making this possible. Finding a demand for improved homesites they proceeded to install improvements, including them in the cost of lots. Sub-divisions have been placed on the market with lots for sale at prices to fit any pocketbook. In connection with the marketing of lots, houses have been built by operating companies in the hundreds of thousands. The real estate man has kept pace with the demand, spreading his operations into new territories, foreseeing the growth that was to come and furnishing the accommodations to care for the rapidly expanding populations of cities. He has been a pioneer extending the frontiers of city civilization.

Half a century ago it was necessary to have a large proportion of the value of the premises available in money before a man could own a home. Today a few hundred dollars will buy a cozy dwelling, the balance being paid over a course of a few succeeding years in the same way as rent is paid. This has fostered thrift and has made the United States a nation of home owners. In these days of world unrest, America has been blest by having a citizenry stabilized by the interest which goes with the possession of a home.

"Can I own a piece of land? Is it possible for me to own my own home?" are the questions asked of American visitors in Europe by countless thousands who are eager to escape the landlordism of the old world. When assured that they can, in a few years, save several hundred dollars and move into their own homes in America these home hungry people straightway begin planning to leave their native countries and come to this western land of promise.

Equally important are the big business building operations of large cities. Prior to the year 1887 when Wm. Holabird of Chicago created the first steel frame building, business structures of more than four or five stories were a rarity. With the increase in land values the skyscraper was evolved as an economic necessity. New structures from ten to twenty stories are common throughout the cities of this country, monuments of steel and stone which typify the American spirit of growth and enterprise. Behind each new development is the far seeing spirit of a real estate man, a pioneer blazing new trails in city development.

To handle effectively the task of providing the expanding population of America with residential, commercial and industrial buildings there has come a specialization in business of the real estate man. Great real estate promotion corporations, building companies, financial concerns loaning on mortgages and selling real estate securities, have sprung into being to meet the problem of housing the people and businesses of the modern city. Brokerage offices, conducted along high ethical standards exist for the purpose of marketing properties after they are built, fitting the needs of the user to the accommodations best suited to his use. Property management offices, handling hundreds of estates for owners have developed in many large cities. National organizations, such as the National Association of Real Estate Boards and the National Association of Building Owners and Managers, control the activities of their constituent bodies, located in all of the important trade centers of the country.

Definite ethical practices adopted for the purpose of maintaining the real estate business on a high plane are now in effect and have much to do with controlling this great business in such a manner that protects the public in its dealings in the building, buying and selling of real property. Behind these organizations are the men of vision who have dedicated their lives and fortunes in the service of this public need.

Truly, it is the real estate man who is primarily the city builder. He visions the future, dreams of the developments yet to come, developing in concrete form the work of city planners, and follows through by adopting the best ideas available for the creation of new enterprises.

Building cities is a task worthy of the best efforts of any class of men. A grateful public pays homage to the wisdom, ingenuity and progressive pioneering of the frontiersman of our American city—the Realtor.

* * *

So endeth this tale of many cities!

ADDENDA

COMPARISON TABLE OF DEPTH PERCENTAGE FOR VALUING RESIDENTIAL LOTS

These tables are for use in computing the comparative values of lots of varying depths in residential districts. The Newark rule assumes a lot to be of standard depth when it is 100 *feet deep. The four other rules assume the standard depth to be* 120 *feet deep. Lots of less depth than the standard for each table are graded in value less according to the precentage indicated in the table and lots in excess of the standard are graded in value higher according to the percentages indicated.*

For example: Assume a unit value of $100 *a foot—the lot having a depth of* 100 *feet. According to the five rules the value per foot would be as follows:*

RULE	PERCENTAGE	VALUE PER FOOT
Newark	100	$100
Milwaukee	92	92
Janssens	88	88
Kings	91.4	91.4
Leenhouts	88	88

If the lot were 120 feet deep, the values would be—assuming a unit value of $100 a foot:

Newark	108	$108
Milwaukee	100	100
Janssens	100	100
Kings	100	100
Leenhouts	100	100

Depth of Lot in Feet	Newark Rule	Milwaukee Rule	Janssens Curve	Kings Curve	Leenhouts Rule
5		9			6
10	15	17	12		12
15		24	18		17
20	30	30	24		23
25		35	30		28
30	45	40	35		33
35					37
40	55	50	45	45.4	42
45		55	49	51.7	47
50	65	60	52	57.3	51
55		64	56	62.3	55
60	74	67	59	66.8	59
65		71	64	70.9	63
70	83	75	68	74.6	67
75		78	71	78.0	71
80	91	81	75	81.1	75
85		84	78	83.9	78
90	96	87	82	86.5	82
95		90	85	89.0	85
100	100	92	88	91.4	88
105		95	91	93.7	92
110	104	97	94	95.9	95
115		98	97	98.0	98
120	108	100	100	100.0	100
125		101	102	101.9	102
130	112	102	104	103.7	103
135		103	106	105.5	105
140	116	104	108	107.2	107
145		104	110	108.9	108
150	120	105	112	110.5	109
155		105	113.5	112.1	111
160	124	105	115		112
165		106	116.5		113
170	127	106	118		114
175		107	119.5		115
180	129	107	121		116
185		108	122.5		117
190	131	109	124		118
195		110	125.5		118
200	133	110	127.5		119

Newark Rule from Assessors Manual of Jersey City, N. J.

Milwaukee, Janssens and Kings Curve from "The Valuation of Urban Realty for the Purposes of Taxation" by Willford Isbell King.

Leenhouts Rule from "Manual for Appraising Real Estate and Buildings" by George W. Close.

Comparison of Depth Table

This table has been compiled for comparison, showing the relative values of lots of varying depths in business districts. All but two of these tables consider the standard lot to be 100 feet deep in a business district. The Lindsey-Bernard rule and the Pleydell rule consider the standard to be 150 feet. Lots of less depth than the standard of 100 feet are graded in value less according to the percentage indicated in the table, and lots in excess of the standard are graded in value higher according to the percentage indicated.

Feet in Depth	4-3-2-1	Hoffman	Hoffman Neill	Newark Rule	Lindsey-Bernard	Somers	Chicago	Milwaukee	Harper-Edgar	Davies-N. Y.	Cleveland	Martin-Chicago	McMichael Bingham Average
5	9.4	......	17	....	9	14.35	14.9	17	23.0	12.6	14.35	14.95	15.28
10	17.8	16	26	25	15	25	19.9	28	32.0	21.7	25	19.90	25.13
15	25.6	23.5	33	....	21	33.22	25.0	37	39.0	29.2	33.22	24.75	30.36
20	33.	31	39	42	27	41	30.1	44	45.0	35.8	41.	29.6	36.95
25	40	37.5	44	....	33	47.9	34.3	49	50.	41.7	47.9	34.35	42.67
30	46.7	44	49	58	38.5	54	39.9	54	55	47.1	54.	39.1	48.28
35	53.1	50	54	....	44	59.2	......	59	......	52.1	59.2	43.75	......
40	59.1	56	58	68	49	64	48.8	63	63	56.8	64.	48.40	58.11
45	61.7	61.5	63	....	54	68.45	......	67	......	61.3	68.45	52.95	......
50	70	67	67	75	58.5	72.5	57.5	70	70.5	65.4	72.5	57.5	66.99
55	74.9	71.5	71	....	63	76.2	......	74	......	69.4	76.2	61.95	......
60	79.4	76	74	80	67	79.5	67.0	77	77.5	73.4	79.5	66.4	74.97
65	83.4	80	78	....	70.6	82.61	......	80	......	77.1	82.61	70.75	......
70	86.9	84	81	85	73.9	85.6	76.0	84	83.6	80.6	85.6	75.10	82.24
75	90	87.5	84	....	76.9	88.3	79.3	87	86.6	84.1	88.3	79.35	......
80	92.22	91	88	90	79.6	90.9	84.0	90	89.4	87.6	90.9	83.60	88.76
85	94.22	93.5	91	....	82	93.33	......	93	......	91	93.33	87.75	......
90	96.17	96	94	95	84.2	95.6	92.2	95	95	94	95.6	91.90	94.55
95	98.1	98	97	....	86.2	97.85	......	98	......	97	97.85	95.95	......
100	100	100	100	100	88	100	100	100	100	100	100	100	100
105	101.89	......	....	....	89.6	102.08	......	102	......	103	102.08	103.95	......
110	103.76	......	....	104	91.1	104	108	103	105	106	104	107.90	105.2
115	105.585	......	....	....	92.5	105.78	......	105	......	108.7	105.78	111.75	......
120	107.35	......	....	108	93.8	107.5	116	107	109.5	111.2	107.5	115.6	110.2
125	109	......	112	....	95	109.05	119.3	109	112.6	113.7	109.05	119.35	112.56
130	110.6	......	....	112	96.1	110.5	......	110	......	116.2	110.5	123.10	......

Comparison of Depth Table—*Continued*

Feet in Depth	4-3-2-1	Hoffman	Hoffman Neill	Newark Rule	Lindsey-Bernard	Somers	Chicago	Milwaukee	Harper-Edgar	Davies-N. Y.	Cleveland	Martin-Chicago	McMichael Bingham Average
135	112.2	......	....	....	97.2	111.8	......	112	......	118.7	111.8	126.75	......
140	113.8	......	....	116	98.2	113	131.0	113	118.2	121.2	113	130.40	......
145	115.4	......	....	....	99.2	114.05	......	114	......	123.7	114.05	133.95	......
150	117	......	118	120	100	115	137.5	115	122.4	126.2	115	137.50	123.73
155	118.4	......	....	....	....	......	......	116	......	128.7	115.95	140.95	......
160	119.8	......	....	124	....	......	145.0	117	126.4	131.2	116.8	144.40	......
165	121.2	......	....	....	....	......	......	118	......	133.7	117.64	147.75	......
170	122.6	......	....	127	....	......	......	118	......	136.2	118.4	151.10	......
175	124.0	......	122	....	103	119.14	154.3	119	132.3	138.7	119.14	154.35	131.44
180	125.2	......	....	129	....	......	158.0	120	134.2	141.2	119.8	157.60	......
185	126.4	......	....	....	....	......	......	120	......	143.2	120.43	160.75	......
190	127.6	......	....	131	....	......	......	121	......	145.2	121	163.90	......
195	128.8	......	....	....	....	......	......	122	......	147.2	121.53	166.95	......
200	130	......	125	133	105	122	170	122	141.4	149.2	122	170.00	139.07
250	....	......	....	....	....	......	......	126	158	......	126.05	......	......
300	....	......	....	....	....	......	......	....	......	......	129.25	......	......
350	....	......	....	....	....	......	......	....	......	......	131.9	......	......
400	....	......	....	....	....	......	......	....	......	......	134.2	......	......
450	....	......	....	....	....	......	......	....	......	......	136.15	......	......
500	....	......	....	....	....	......	......	....	......	......	137.85	......	......
550	....	......	....	....	....	......	......	....	......	......	139.3	......	......
600	....	......	....	....	....	......	......	....	......	......	140.55	......	......
650	....	......	....	....	....	......	......	....	......	......	141.55	......	......
700	....	......	....	....	....	......	......	....	......	......	142.35	......	......

POPULATION OF AMERICAN CITIES

Population of the 50 largest cities in the United States in the order of their rank: 1920 and 1923 estimates of the United States Census Bureau.

RANK	CITY	POPULATION 1920	ESTIMATED POPULATION JULY 1, 1923
1.	New York, N. Y.	5,620,048	5,927,625
	Manhattan borough	2,284,103	2,267,001
	Bronx borough	732,016	840,544
	Brooklyn borough	2,018,356	2,156,687
	Queens borough	469,042	535,844
	Richmond borough	116,531	127,549
2.	Chicago, Ill.	2,701,705	2,886,121
3.	Philadelphia, Pa.	1,823,779	1,922,788
4.	Detroit, Mich.	993,678	*
5.	Cleveland, Ohio	796,841	888,519
6.	St. Louis, Mo.	772,897	803,853
7.	Boston, Mass.	748,060	770,400
8.	Baltimore, Md.	733,826	773,580
9.	Pittsburgh, Pa.	588,343	613,442
10.	Los Angeles, Calif.	576,673	666,853
11.	Buffalo, N. Y.	506,775	536,718
12.	San Francisco, Calif.	506,676	539,038
13.	Milwaukee, Wis.	457,147	484,595
14.	Washington, D. C.	437,571	*
15.	Newark, N. J.	414,524	438,699
16.	Cincinnati, Ohio	401,247	406,312
17.	New Orleans, La.	387,219	404,575
18.	Minneapolis, Minn.	380,582	409,125
19.	Kansas City, Mo.	324,410	351,819
20.	Seattle, Wash.	315,312	*
21.	Indianapolis, Ind.	314,194	342,718
22.	Jersey City, N. J.	298,103	309,034
23.	Rochester, N. Y.	295,750	317,867
24.	Portland, Oreg.	258,288	273,621
25.	Denver, Colo.	256,491	272,031
26.	Toledo, Ohio	243,164	268,338
27.	Providence, R. I.	237,595	242,378
28.	Columbus, Ohio	237,031	261,082
29.	Louisville, Ky.	234,891	257,671
30.	St. Paul, Minn.	234,698	241,891
31.	Oakland, Calif.	216,261	240,086
32.	Akron, Ohio	208,435	*
33.	Atlanta, Ga.	200,616	222,963
34.	Omaha, Nebr.	191,601	204,382
35.	Worcester, Mass.	179,754	191,927
36.	Birmingham, Ala.	178,806	195,901
37.	Syracuse, N. Y.	171,717	184,511
38.	Richmond, Va.	171,667	181,044
39.	New Haven, Conn.	162,537	172,967
40.	Memphis, Tenn.	162,351	170.067
41.	San Antonio, Texas	161,379	184,727
42.	Dallas, Texas	158,976	177,274
43.	Dayton, Ohio	152,559	165,530
44.	Bridgeport, Conn.	143,555	*
45.	Houston, Texas	138,276	154,970
46.	Hartford, Conn.	138,036	*
47.	Scranton, Pa.	137,783	140.636
48.	Grand Rapids, Mich.	137,634	145,947
49.	Paterson, N. J.	135,875	139,579
50.	Youngstown, Ohio	132,358	*

*No estimate made. The growth from 1910 to 1920 if projected gives a figure believed to be considerably in excess of the actual population.

POPULATION DENSITY IN LARGE CITIES

City	Population in 1920	Area in Square Miles.	Population per Acre.
New York City (Borough of Manhattan only)	2,284,103	22	162
New York City	5,620,048	315	28
New York (Port Authority)	8,000,000	1,463	9
London	4,483,000	117	60
London (Metropolitan District)	7,476,000	693	17
Paris	2,906,000	30	151
Paris (Metropolitan District)	4,500,000	185	38
Chicago	2,701,705	200	21
Chicago (Metropolitan District)	3,000,000	275	17
Berlin	2,200,000	29	118
Berlin (Metropolitan District)	3,804,000	339	18
Philadelphia	1,823,779	130	22
Boston (Metropolitan District)	1,772,254	57	21
Detroit	993,678	83	19
Cleveland	796,841	57	22
St. Louis	772,897	62	19
Boston	748,060	47	25
Baltimore	733,826	92	13

The Metropolitan district of New York, or Greater New York is assumed to mean that area included within the Port Authority control. This is the only legal metropolitan entity now existing with respect to Metropolitan New York.

Greater London consists of the area surrounding London under the control of the Metropolitan Police. The Greater London area is a little less than half the area of Greater New York.

Metropolitan Paris is the Department of the Seine, and it is only a little greater in area than one-tenth of Greater New York.

Greater Berlin, the municipal Berlin of today, is about the same size as New York City of today. In the aggregate, the three greater cities, London, Paris and Berlin cover about 1217 square miles, 246 square miles less than the area included in Greater New York.

Greater London's population is 93 per cent of that of Greater New York; Greater Paris, 56 per cent and Greater Berlin, 48 per cent. The aggregate of the populations of the three greater cities is 15,780,000, just about twice the population of Greater New York.

The total population of the United States in 1920 was 105,710,620. The land area in square miles was 2,973,744 and the population per square mile was 35.5.

PERCENTAGE OF HOME OWNERS

Ownership of Homes in Cities in the United States having a population of over 300,000 in 1920.

		Per Cent of All Homes		
City	Rented	Owned	Owned Free	Mortgaged
New York	87.3	12.7	2.7	10.0
Chicago	73.0	27.0	9.8	17.2
Philadelphia	60.5	39.5	11.8	27.7
Detroit	61.7	38.3	14.9	23.4
Cleveland	64.9	35.1	14.4	20.7
St. Louis	76.2	23.8	13.1	10.7
Boston	81.5	18.5	6.3	12.3
Baltimore	53.7	46.3	24.9	21.4
Los Angeles	65.3	34.7	18.3	16.4
Pittsburgh	71.7	28.3	15.2	13.1
San Francisco	72.6	27.4	16.3	11.1
Buffalo	61.4	38.6	15.1	23.5
Milwaukee	64.5	35.5	14.4	21.1
Washington, D. C.	69.7	30.3	13.5	16.8
Newark	79.8	20.2	5.5	14.7
Cincinnati	70.3	28.7	16.3	12.4
New Orleans	76.9	23.1	16.1	6.9
Minneapolis	59.1	40.9	18.6	22.3
Kansas City, Mo.	65.3	34.7	12.8	22.0
Seattle	53.7	46.3	22.9	23.5
Indianapolis	65.5	34.5	14.8	19.7

RATIO OF AVERAGE DEBT ON HOMES

Average value, debt and ratio of debt to value of mortgaged homes in cities over 300,000 in the United States together with an average rate of interest paid in 1920.

	Average value of the mortgaged home	Average debt on each of mortgaged home	Ratio of average debt to value	Average annual rate of interest
New York	9,008	4,340	48.2	5.6
Chicago	6,459	2,734	42.3	5.9
Philadelphia	5,032	2,593	51.5	5.9
Detroit	7,595	3,119	41.1	6.0
Cleveland	6,495	2,525	38.8	6.2
St. Louis	4,921	2,249	45.7	5.9
Boston	6,880	3,166	46.0	5.8
Baltimore	3,556	1,431	40.0	6.0
Los Angeles	5,588	2,223	39.7	6.9
Pittsburgh	6,793	2,820	41.5	5.9
San Francisco	5,735	2,468	43.0	6.1
Buffalo	6,210	2,647	42.6	5.6
Milwaukee	5,390	2,411	44.7	5.3
Washington, D. C.	7,114	3,297	46.3	5.9
Newark	7,996	3,746	46.8	5.8
Cincinnati	5,051	2,215	43.8	6.0
New Orleans	5,170	2,209	42.7	7.2
Minneapolis	5,175	1,981	38.2	6.1
Kansas City, Mo.	5,260	2,690	51.1	6.1
Seattle	3,570	1,670	46.7	7.0
Indianapolis	4,286	1,792	41.8	6.2

BIBLIOGRAPHY

Below may be found a list of standard works on real estate, valuation and kindred subjects, to which reference may be made by anyone interested in such topics.

Benson, Philip A., and Nelson L. North.—"Real Estate Principles and Practices." Published 1922 by Prentice-Hall, Inc., New York, N. Y. Price $4.

Bernard, Alfred D.—"Some Principles and Problems of Real Estate Valuation." Published 1913 by Alfred D. Bernard, U. S. Fidelity & Guaranty Co., Baltimore, Md. Out of print.

Bingham, Robert F., and Stanley L. McMichael.—"City Growth and Values." Published 1923 by Stanley L. McMichael, 1222 Prospect Ave., Cleveland, O. Price $4.

Bolton, Reginald.—"Building for Profit." Published in third edition, 1922, by author, 116 E. 19th St., New York, N. Y. Price $2.50.

Boyle, James E.—"Methods of Assessment as Applied to Different Classes of Subjects." Published 1907 by The National Tax Association, 195 Broadway, New York. Price $10.

"Publication of Assessment Lists"—Published 1908.

Brown, Albert O.—"Common Methods of Valuing Property for Taxation." Published 1914.

Burton, H. J.—"Valuation and Depreciation of City Buildings." Published 1919 by H. J. Burton, Plymouth Bldg., Minneapolis, Minn.

Byram, Lawrence LeRoy.—"Turning Real Estate Into Cash." Published 1915 by The Byram Co., Houston, Tex.

Charlton, J. D.—"The Rating of Land Values." Published 1907 by The Universal Press, 34 Cross St., Manchester, England.

Cloos, George W., and Harry J. Farmer.—"Manual For Appraising Real Estate and Buildings." Published 1916 by C. N. Casper, Milwaukee, Wis. Price $15.

Cloud, Paul G., and John B. Spilker.—"The Real Estate Business As a Profession." Published 1921 by The Steward Kidd Co., 121 E. 5th St., Cincinnati, O. Price $3.

Cowles, H. V., and J. H. Leehouts.—"How To Assess Property In Cities and Rural Towns." Published 1914 by The Wisconsin Tax Commission, Madison, Wis.

Cragin, Geo. J.—"Practical Methods for Appraising Lands, Buildings and Improvements." Published by Dept. of Taxes and Assessments, New York City.

Dewall, L. C. L.—"The Taxation and Equalization of City, Town and County Real Estate." Published 1901 by W. M. Warlick, Waco, Texas. Price 50c.

Ely, Richard T.—"Characteristics and Classification of Land."
"Costs and Income In Land Utilization."
"Land Policies."
Published 1922 by Edwards Bros., Ann Arbor, Mich. Price, set of 3 volumes for $5.75. Per volume $2.25.

Evers, Cecil C.—"Commercial Problems In Buildings." Published 1914 by The Record & Guide Co., 119 W. 40th St., New York, N. Y. Price $1.50.

Fisher, Ernest M.—"Principles of Real Estate Practice." Published for the National Association of Real Estate Boards by The MacMillan Co., New York. Price $3.50.

Geddes, Patrick.—"Cities in Evolution." Published 1915 by Williams & Norgate, London, Eng.

Ginty, Eugene M.—"Scientific Methods for Appraising Farm Lands." Published 1917 by James H. Barry Co., San Francisco, Calif.

Gross, Fred. L.—"The Law of Real Estate Brokers." Published 1917 by The Roland Press Co., New York, N. Y.

Hayward, S. W., and Percival White.—"Chain Stores." Published 1922 by The McGraw-Hill Co., 370 Seventh Ave., New York, N. Y. Price $3.50.

Howe, Frederic C.—"The Scientific Appraisal of Real Estate As a Basis for Taxation." Frederic C. Howe, New York City.

Hurd, Richard M.—"Principles of City Land Values." Published second edition in 1913 by The Record & Guide Co., 119 W. 40th St., New York City. Out of print.

James, Harlean.—"Building of Cities." Published 1917 by The MacMillan Co., New York City.

King, W. I.—"The Valuation of Urban Land for Purposes of Taxation." Published 1914.

Kirkman, Geo. W.—"Real Estate As a Business." Published 1910 by A. H. Putney, Minneapolis, Minn.

Lane, Henry A.—"Real Estate Tables." Published 1923 by Henry A. Lane, Detroit, Mich.

MacDonald, John F.—"The Real Estate Guide." Published 1921 by The MacDonald Co-operative Realty Co., San Diego, Calif.

McMichael, Stanley L.—"Long and Short Term Leaseholds." Published in second edition, 1923 by Stanley L. McMichael, 1222 Prospect Ave., Cleveland, O. Price $4.

McMichael, Stanley L., and Robert F. Bingham.—"City Growth and Values." Published 1923 by Stanley L. McMichael, 1222 Prospect Ave., Cleveland, O. Price $4.

Pleydell, A. C.—"Rules and Suggestions for the Assessment of Real Property."
"The Use of Standards In Real Estate Assessment."

Polleys, Thos. A.—(Tax agent C., St. Paul, Minn., & Omaha Ry., Minneapolis) "Real Estate Valuations."

Purdy, Lawson.—"The Assessment of Real Estate In the City of New York" (Published as a supplement to The National Municipal Review in 1919 and republished as a separate pamphlet).

Rapalje, Stewart.—"The Law Relating To Real Estate Brokers." Published 1893 by L. K. Strouse & Co., New York City.

Robinson, James Watts.—"Robinsonian Worth of Money and Interest Tables." Published 1909 by James W. Robinson, Brookline, Mass. Price $7.

Scheftel, Yetta.—"Taxation of Land Values." Published 1916 by The Houghton Mifflin Co., Boston, Mass.

Skrimshire, Samuel.—"Valuations." Published 1922 by Spon & Chamberlain, New York. 1915. $3.00.

Somers, W. A.—"The Somers System of Realty Valuation." Published by The Manufacturers' Appraisal Co., Commercial Bank Bldg., Cleveland, O.

"Analysis of the Chicago Assessors Plan of Computing Site Values, etc." Published Feb. 1911 by The Manufacturers' Appraisal Co., Commercial Bank Bldg., Cleveland, O.

"Unit System of Realty Valuation." Published 1911 by The Manufacturers Appraisal Co., Commercial Bank Bldg., Cleveland, O.

Stoner, J. Ben.—"System for Equalizing, Assessing and Collecting Taxes." Published by The Sigmund Press, San Antonio, Texas.

Usher, T. B.—"Assessors Manual." Published 1915 by The Assessors Department, Jersey City, N. J. Price $1.50.

Van Dyke, J. E.—"Valuations." Published by The Financial Press, 116 Broad St., New York.

Webb, Clarence A.—"Valuation of Real Property." Published 1913 by Crosby, Lockwood & Son, Westminster, S. W., London, England. Price $3.

Weber, A. F.—"Growth of Cities In the 19th Century." Published by The MacMillan Co., New York City.

Whitten, Robt. H.—"Valuation of Public Service Corporations." 2 vols. Published 1914 by The Banks Law Publishing Co., New York. Price $5.50.

Williams, Frank Backus.—"The Law of City Planning and Zoning." Published 1922 by The MacMillan Co., New York. Price $5.

Zangerle, John A.—"Principles of Real Estate Appraising." Published in 1924 by Stanley L. McMichael, 1222 Prospect Ave., Cleveland, O.

"First Quadrennial Assessment of Real Property for Cleveland 1910." Published 1912 by John A. Zangerle, County Auditor, Cleveland, O. Out of print.

"Cleveland and Its Suburbs In Perspective." Published 1922 by John A. Zangerle, County Auditor, Cleveland, O.

MISCELLANEOUS

"Depreciation, Obsolescence and Appreciation." Publshed in pamphlet form in 1923 by The Cleveland Association of Building Owners and Managers, 612 The Arcade, Cleveland, O.

"Factors of Value of New Buildings and Explanation of Land Value Maps." Published 1912 by The Department of Taxes and Assessments of the City of New York.

"How To Sell Real Estate At a Profit." Published 1909 by The System Co., Chicago, Ill.

"National Association of Building Owners and Managers—Proceedings of Its Annual Conventions." Published by The National Association of Building Owners and Managers, Anderson Bldg., Chicago, Ill.

"The National Real Estate Journal."—Official semimonthly publication of The National Association of Real Estate Boards. Published by Porter-Bede-Langtry Corp., 139 N. Clark St., Chicago, Ill. Subscription $5 per annum.

"Practical Real Estate Methods." Published by Doubleday, Page & Co., Garden City, N. Y. Price $2.

"The Realtors' Blue Book of California." Published 1923 by The Realtors' Blue Book of California Co., 216 Coulter Bldg., Los Angeles, Calif.

"Scientific Appraisals." Published by The Manufacturers' Appraisal Co., Commercial Bank Bldg., Cleveland, O.

"Studies On Building Height Limitations In Large Cities." Published 1923 by The Chicago Real Estate Board, 57 W. Monroe St., Chicago, Ill. Price $2.50.

"Zoning As An Element In City Planning and for the Protection of Property Values, Public Safety and Public Health." Published 1920 by The American Civic Association, 913-14 Union Trust Bldg., Washington, D. C.

CHAIN STORES

Below may be found some of the most prominent chain store concerns operating throughout the United States.

WOMEN'S CLOTHING

Aaron Adler, 1170 Broadway, New York City.
E. R. Angerman, 404 Fourth Ave., New York City.
Bedell & Co., West 14th St., New York City.
Belmont Stores Corp., New York City.
Blauners Waist Shops, 833 Market St., Philadelphia, Pa.
A. L. Braus, 10 E. 14th St., New York City.
J. Brown, 44 Willbury St., Worcester, Mass.
L. E. Cohen, Ladies' Waists, 8713 Bay 16th St., Brooklyn, New York.
New York Waist Stores, 115-123 West 30th St., New York City.
S. Collatt, 1181 Broadway, New York City.
Diamond Bros., Ladies' Waists, 115 W. 30th St., New York.
Dorf Bros. & Co., 153 West 27th St., New York City.
Dann & Co., New York City.
The Fair, 4 E. 14th St. New York City.
Fair Shop, 152 Temple St., New Haven, Conn.
Fashion Shop, 15 Carlisle St., Hanover, Pa.
Federman, Marcus J., 895 Broadway, New York.
Fisher Bros., 58 Division St., New York City.
Fleischer Cloak & Suit Co., 20-28 West 33rd St., New York.
Earnest Franken, Box 583, Waterbury, Conn.
Friedberg Waist Co., 28-42 E. 32nd St., New York City.
Garey Ready to Wear, New York City.
Gimbels, Springfield, Mass.
Edw. E. Gitelson, 200 Fifth Ave., New York City.
Gold's Stores, 366 Fifth Ave., New York City.
Grossman Bros. Cloak Co., Moline, Ill.
K. S. Hermel, 50 Division St., New York City.
Morris Herzog, 38-40 West 32nd St., New York City.
Jos. Hilton, 343 Broadway, New York City.
Hilton Co., 793 Broad St., Newark, N. J.
Hudson Cloak & Suit Co., 42 West 33rd St., New York.
Kline Cloak & Suit Co., Chicago, Ill.
Lerner Blouse Shops, 19 West 36th St., New York.
Levy & Nathan, New York City.
Madame Irene, 500 Fifth Ave., New York City.
The May Company, St. Louis, Mo.
Morrisons, Inc., 1364 Broadway, New York City.
National Cloak & Suit Co., 174 Main St., Springfield, Mass.
National Dept. Stores Co., Cleveland, Ohio.
National Clothing Co., 622 Main St., Little Rock, Ark.

GENERAL MERCHANDISE

Britts Five & Ten Cent Stores, Spokane, Wash.
Colonila Merchandise Co., 63 Williams St., New York City.
Fair Stores, Little Rock, Ark.
F. & W. Grand, 79 Fifth Ave., New York City.
W. T. Grant Co., 28-30 West 23rd St., New York.
S. S. Kresge Co., Detroit, Mich.
The May Co., St. Louis, Mo.,
Metropolitan 5-50 Cent Stores, Inc., 71 West 23rd St., New York City.
The National Dept. Stores Co., Cleveland, Ohio.
J. C. Penney Co., New York.
The Saitner Co., Canton, Ohio.
F. W. Woolworth Co., Woolworth Bldg., New York City.

SILK STORES

Bedford Silk House, Inc., 130 Main St., Waterbury, Conn.
Boston Silk and Dress Goods Store, 118 So. Main St., Waterbury, Conn.
Brown Freeman & Co., 24 Kingston St., Boston, Mass.
B. Edmund David, Inc., 354 Fourth Ave., New York.
Kennedy Silk Shop, Kansas City, Mo.
Primrose Silk Stores, Inc., 5th Ave & 38th St., New York City.

MISCELLANEOUS

Burroughs Adding Machine Co., Detroit, Mich. (Adding Devices).
Barker Bakeries, New York, N. Y.
C. & G. Bakery Co., Cambridge, Mass.
Federal Bakeries, Inc., Minneapolis, Minn.
Federal Bakery & Pastry Co., Peoria, Ill.
Federal System of Bakeries, Davenport, Ia.
S. W. Roth (Baker), 1286 Stebbins Ave., New York City.
Methodist Book Concern, New York, N. Y. (Periodicals).
Western News Co., Chicago, Ill. (Periodicals).
Eastman Kodak Co., Rochester, N. Y. (Kodaks).
B. S. & S. M. Bushman, Buffalo, N. Y. (Candies).
Crane Chocolate Co., Cleveland, Ohio.
Columbia Candy Kitchen, Fort Wayne, Ind.
Grace Darling Candy Shops (Fannie Farmer), Rochester, N. Y.
Huyler's, 128 East 18th St., New York City. (Candies).
Jackson & Co., Main St., Springfield, Mass. (Candies)
Jackson Confectionery Co., Boston, Mass.
Lofts Candies, Inc., 400 Broome St., New York City.
Majestic Confectionery Co., 257 North St., Pittsfield, Mass.
Martha Washington Candy Co., Chicago, Ill.
Mary Lee Candy Co., 440 Macomb St., Detroit, Mich.
Souther Candy Co., 19 Central Ave., Newark.
United Retail Stores Candy Co., New York.
The Nunnally Co., Atlanta, Ga. (Candies).
National Cash Register Co., Dayton, Ohio.

MEN'S AND WOMEN'S SHOES

C. H. Baker, Los Angeles, Calif.
Beacon Shoe Store, Manchester, N. H.
Bond Shoe Co., 295 Main St., Springfield, Mass.
Boston Shoe Market, A. A. Rosenbush & Co., 146 Lincoln St., Boston, Mass.
I. Blyn & Sons, 3rd Ave. & 122nd St., New York.
Cantilever Shoe Co., Montgomery, Ala.
Central Shoe Co., 118 Duane St., New York City.
Edwin Clapp Shops, Inc., E. Weymouth, Mass.
Dorothy Dodd Shoe Co., Boston, Mass.
Douglas Shoe Co., Brockton, Mass.
Emerson Shoe Co., Rockland, Mass.
Endicott-Johnson Co., Endicott, N. Y.
Florsheim Shoe Co., Chicago, Ill.
Feltman-Curme Shoe Co., Chicago, Ill.
French Shriner & Urner, 47 West 34th St., New York City.
I. Glassberg, 225 West 42nd St., New York City.
Globe Shoe Co., 207 Essex St., Boston, Mass.
Hanover Shoe Co., Hanover, Pa.
John Irving, 168 Main St., New Britain, Conn.
Harvey Jenks, F. M. Hoyt Shoe Co., Manchester, N. H.
Geo. E. Keith Co., Campello, Mass. (Walkover Shoes).
G. R. Keaney Co., 233 Broadway, New York City.
J. P. Levy Shoe Co., 168 Main St., New Britain, Conn.
Lynch Shoe Co., Piqua, O.
Nettleton Shoe Co., Syracuse, N. Y.
Panor Shoe Co., Des Moines, Ia.
Dr. A. Reed Shoes (The J. B. Smith Shoe Co.), Chicago, Ill.
Regal Shoe Co., Whitman, Mass.
Rice & Hutchins, Boston, Mass.
Rival Shoe Co., 121 Duane St., New York City.
M. Samuels & Co., (Newark Shoes), Baltimore, Md.
Selis Shoe Co., Stoughton, Mass.
Sheppard & Myers, Inc., Hanover, Pa.
Singer Shoe Co., Boston, Mass.
Slater Shoes, 365 Washington St., Boston, Mass.
Sorosis Shoes, A. E. Little Co., Lynn, Mass.
Spencer Shoe Stores, 215 Essex St., Boston, Mass.
Three K. Shoe Co., Stoughton, Mass.
Traveler Shoe Co., 287 Atlantic Ave., Boston, Mass.

MEN'S SHIRTS

Chain Shirt Shops, Inc., 213, 4th Ave., New York.
National Shirt Shops, Inc., 55 Fifth Ave., New York.
United Shirt Shops, Inc., 565 Broadway, New York.
Washington Shirt Co., Chicago, Ill.

New York Waist House, 1115 Broadway, New York City.
New York Waist Stores, 115-123 West 30th St., New York City.
Oppenheim Collins, New York City.
Palais Royal, 113 S. 2nd St., Cedar Rapids, Ia.
D. Price & Co., 286 Sixth Ave., New York City.
Rockwell Brothers, 52 Division St. New York City.
Ruth Stores, Inc., 38 West 32nd St., New York City.
Schiller & Nadelson, Ladies' Waists, 14 Main St., Yonkers, N. Y.
Jacob Schweder, 851 Huntspoint Ave., New York.
Sam Soloman, 1261 Broadway, New York City.
H. L. Tannenhold, 31 Bedford St., Boston, Mass.
United Waist Stores, New York City.
Up-to-Date Cloak Mfg. Co., 303 Wall St., Kingston, N. Y.
Women's Shop, 20 Main St., Yonkers, N. Y.
Women's Wear Mfg. Co. Assn., Inc., 31 Union Square, New York.

MEN'S CLOTHING

Mark Andrews Co., 65 Bedford St., Boston, Mass.
A. Bardock, 1916 Third Ave., New York City.
Bell Tailoring Co., 913-21 West Van Buren St., Chicago, Ill.
Biltmore Clothes Shops, 729 Broadway, New York City.
Bond Clothing Co., Cleveland, Ohio.
J. P. Brennan, 67 Boylston St., Boston, Mass.
Broadway Clothes Shop, 155 Broadway, New York.
Browning King & Co., New York City.
Caesar Misch, Inc., 1160 Main St., Bridgeport, Conn.
Capper & Capper, 104 South Mich. Ave., Chicago, Ill.
Chester Clothes, Inc., New York City.
Davidson & Finklebrand, New York City.
English Woolen Mills, 87 Elliot St., Buffalo, N. Y.
Forman-Clark, Chicago, Ill.
Golde Clothes Shop, Inc., 84 Fifth Ave, New York.
J. & S. Holstein, 64 William St., New York City.
Jamerson Clothes Shop, 170 Fifth Ave., New York.
Jerrems, Inc., 200 Clark St., Chicago, Ill.
N. Kadin, 32 West 112th St., New York City.
Kennedy's 180 Westminster St., Providence, R. I.
Light Corporation, 1177 Broadway, New York City.
Louie's Clothes Shops, Cedar Rapids, Ia.
Meany's, 345 High St., Holyoke, Mass.
Monroe Clothes, 55 Fifth Ave., New York City.
Porter Clothing Co., Birmingham, Ala.
P. & Q. Clothes Shop, 439 Fulton St., New York.
The Raab Brothers Clothing Co., Cincinnati, Ohio.
Richman Bros. Co., E. 55th St., Cleveland, Ohio.
Rossman, Inc., Minneapolis, Minn.
J. E. Rothwell & Co., 400 Boylston St., Boston, Mass.

B. B. Shanken, Trenton, N. J.
Chas. W. Solomon & Co., 484 Main St., Springfield, Mass.
Star Clothing Co., 1262 Acushnet Ave., New Bedford, Mass.
Victory Clothes, Inc., 708 Broadway, New York.
Wonder Clothes Shop, 7 West 14th St., New York.

CLOTHING—GENERAL

Adburg Co., 3 West 30th St., New York City.
American Apparel Co., 1 E. 28th St., New York.
Askin & Marine Co., Inc., 141-7 Fifth Ave., New York, N. Y.
S. & W. Bauman, 2151-61 Third Ave., New York.
Burman Stores Corp., New York City.
Gately Outfitting Co., St. Louis, Mo.
Keystone Clothing Co., 552 Main St., Buffalo, N. Y.
I. Kraushaar & Co., 71 Market St., Newark, N. J.
Lazarus Co., 916 Columbus Ave., New York City.
L. & L. Co., South Bend, Ind.
The Mentor Co., 45 E. 17th St., New York City.
R. M. Neustadt & Sons, La Salle, Ill.
Peoples Credit Clothing Co., Columbus, Ohio.
J. C. Penney Co., New York, N. Y.
Peoples Store, New York City.
Quality Clothes Shops, 718-20 Broadway, New York.
N. Sallinger, Inc., 501 Washington St., Boston, Mass.
The Samuel Stores, Inc., 456 Fourth Ave., New York.
Taylor-Meade Co., Chicago, Ill.

LADIES' MILLINERY

Blair & Co., 621 Broadway, New York City.
Jonas Millinery Co., 349 Fifth Ave., New York City.
Kay's Millinery Co., Newark, N. J.
M. Kinberg, 1593 Broadway, Brooklyn, N. Y.
J. C. Neuhoff, 1105 Main St., Bridgeport, Conn.
Sternberg Millinery Co., Pittsburgh, Pa.
Strong & Warner, St. Paul, Minn.
United Millinery Co., Wichita, Kansas.
M. Wieder, 866 Main St., Hartford, Conn.

HATS AND HABERDASHERY

Celebrity Hat Co., New York City.
Globe Shirt Co., Boston, Mass.
Kaufman (Hats), 123 West 42nd St., New York City.
Manhattan Store, Inc., 102 West 42nd St., New York.
Weber & Heilbronner, 215 Fourth Ave., New York.
Newmark Corp. (Hats), Studebaker Bldg., Chicago.
Sarnoff-Irving Hat Stores, Inc., 419 Lafayette St., New York City.
Truly Warner, New York City.
Wormser Hat Stores. Inc., 25 Waverly Place, New York City.

Remington Cash Register Co., New York City.
General Cigar Co., New York, N. Y.
Hickey Bros. Cigar Co., Davenport, Ia.
Martin Cigar Co., Davenport, Ia.
Rothenberg & Schloss, Kansas City, Mo., (Cigars & Tobacco).
A. Schulte, Inc., 386 Broadway, New York City. (Cigars & Tobacco).
United Cigar Stores, New York City.
L. K. Liggett Co., 42nd St at Madison Ave., New York. (Drugs).
National Drug Stores Co., 405 Lexington Ave., New York.
The Owl Drug Co., 611 Mission St., San Francisco, Calif.
The Sun Drug Co., Los Angeles, Calif.
Boston Store (C. S. Levy), Findlay, Ohio. (Dry Goods).
M. J. Lacor, 235 Hart St., Brooklyn, N. Y. (Dry Goods).
Lewandos French Dyeing and Cleaning, 17 Temple Place, Boston, Mass.
Premier Service Co., Cleveland, Ohio. (Electrical Equipment).
London Feather Co., 21 West 34th St., New York.
J. F. Coombs, 741 Main St., Hartford, Conn. (Florist).
Joy Floral Co., Nashville, Tenn.
Adaskin-Bowditch Furniture Co., 234 Main St., Springfield, Mass.
Rowlands Furniture Co., Lima, Ohio.
D. Somers & Co., Indianapolis, Ind. (Furniture).
Atlantic & Pacific Tea Co., New York. (Groceries).
Kroger Grocery & Bakery Co., Cincinnati, Ohio.
Mohican Co., 280 Broadway, New York City. (Groceries).
Piggly Wiggly Co., Memphis, Tenn. (Groceries).
L. B. Price Mercantile Co., Greenwich, Conn. (House Furnishings).
Walk-on Rug Co., Inc., Liberty Bldg., Buffalo, N. Y. (House Furnishings).
Baker Bros. Co., Jacksonville, Fla. (Meats).
Luehler Bros. Markets, Peoria, Ill. (Meats).
Duley Meat Co., Minneapolis, Minn.
J. H. Remick & Co., New York, N. Y. (Music).
Jas. G. Widener, 59 Temple St., Boston, Mass. (Music).
Arthur P. Griggs Piano Co., Davenport, Ia.
P. A. Starck Piano Co., Chicago, Ill.
Rudolph Wurlitzer Co., Cincinnati, Ohio. (Musical Instruments).
Columbia Optical Co., Salt Lake City, Utah. (Optical Goods).
Globe Optical Co., Denver, Colo. (Optical Goods).
Acme White Lead & Color Works, Hamtramck, Mich. (Paints).
Prudential Paint Store, Inc., 483 Broad St., Newark, N. J.
Sherwin Williams Co., Cleveland, Ohio. (Paints).
Southern Cotton Oil Co., Savannah, Ga. (Paints).
The Pattern Store, Butterick Bldg., New York. (Patterns).
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Plumbing Supplies).
S. Argis, 567 Broad St., Newark, N. J. (Restaurant).
A. H. Brackett, 10 Parley Vale, Jamaica Plains, Boston, Mass. (Restaurant).

Brittling Cafeteria, Birmingham, Ala.
Bunn Brothers, 2 Spruce St., New York City. (Restaurant).
Capitol Lunch System, 169 High St., Boston, Mass.
Child's Restaurants, 200 Fifth Ave., New York.
The Colonade Co., Cleveland, Ohio. (Cafeteria).
Exchange Buffet Corp., 52 William St., New York. (Restaurant).
L. H. Hamman, 2871 Grand Concourse, New York. (Restaurant).
Alfred P. Hantsch, 21 Lefferts Place, Brooklyn, N. Y. (Restaurant).
R. King Kaufman, 1 Wall St., New York City. (Restaurant).
Plakias Lunch Co., Inc., 9 State St., Boston, Mass.
Waldorf Lunch System, Inc., Boston, Mass.
Charles Weeghman Co., Chicago, Ill. (Restaurant).
Singer Sewing Machine Co., New York City.
White Sewing Machine Co., Cleveland, O.
The DuPont Co., Wilmington, Del. (Sporting Accessories).
Winchester Co., 275 Winchester Ave., New Haven, Conn. (Sporting Accessories).
Union Pacific Tea Co., 117 1st Ave., Cedar Rapids, Iowa. (Teas, Coffees, Etc.).
Atlantic & Pacific Tea Co., New York City. (Teas, Coffees, Etc.).
American Writing Machine, Newark, N. J. (Typewriters).
L. C. Smith Bros. Typewriter Co., Boston, Mass.
Eureka Vacuum Cleaner Co., Detroit, Mich.
Cooper Wall Paper Stores, Springfield, Mass.
A. H. Jacob & Co., Brooklyn, N. Y. (Wall Paper).
The A. Beesch Co., Toledo, Ohio. (Groceries and Teas).
The Union News Co., New York City. (Periodicals).
A. G. Spaulding, Chicago, Ill. (Sporting Goods)
John R. Thompson Co., Chicago, Ill. (Restaurants).

INTERESTING VALUATION DATA FROM TWENTY-EIGHT AMERICAN CITIES

The following information was compiled from answers to a questionnaire sent to a number of cities. It shows interesting comparative data as to population, values per foot front, percentage of tax rate to actual value, etc.

City	Population 1920	Estimated population 1923	Per Foot Front Highest sale price of land	Per Foot Front Highest lease price of land	What street	Side of street
Philadelphia	1,823,779	2,000,000	$35,000		Chestnut	South
Detroit	993,678	1,200,000	$27,666	$20,000	Woodward	West
Boston	748,060	837,926	$300 sq. ft.		Temple Place	Both
Los Angeles	576,673	1,000,000	$12,000	$18,000	Broadway	West
St. Louis	772,897	825,000	$20,000	$20,000	8th and Olive	North
Pittsburgh	588,343		$15,000		Fifth Ave.	Both
Cleveland	796,841	900,000	$20,000	$30,000	Euclid and E. 9th	Euclid, South
Minneapolis	380,582	450,000	$10,000	$11,000	Nicollet Ave.	South
Washington	437,571	475,000	$10,000		F Street	West
Trenton	119,289	123,000	$4,500	$5,000	Broad St.	South
New Orleans	387,219	400,000	$13,800	$1,400	Canal St.	Both
Seattle	315,313	350,000	$ 6,000	$ 7,000	University and 2nd	2nd, West
Toronto	499,295	538,771	$17,000	$15,000	Yonge St.	West
Indianapolis	314,194	350,000	$18,500	$18,000	Washington St.	North
Toledo	243,164	268,000	$7,500	$10,000	Summit St.	West
St. Paul	234,698	300,000	$5,000	$10,000	Seventh St.	North
Omaha	191,601	204,382	$10,000	$11,700	Sixteenth St.	West
Louisville	234,891	280,000	$4,600		Fourth St.	West
Rochester	295,750	325,000	$15,000		Main St.	North
Dayton	152,559	210,000	$7,000	$6,000	5th and Main	West
Ft. Wayne	91,600	100,324	$6,000		Calhoun St.	West
Winnipeg	192,571	199,300	$5,100		Portage Ave.	Both
Birmingham	178,806	225,000	$9,000		Second Ave.	North
Atlanta	200,616	225,000	$13,000	$9,000	Peach Ave.	East
Tacoma	96.965	105,000	$4,000	$3,000	Broadway	West
Canton	87,091	99,000	$5,500	$18,000	N. Market Ave.	West
Oakland	216,261	283,000	$7,000	$4,500	Washington St.	West
Portland	258,283	350,000	$6,500	$5,000	Broadway	South
Newark	414,524	450,000			Broad St.	West
Miami	29,549	50,000	$5,000	$5,000	Flagler St.	Both
Grand Rapids	137,634	150,000	$7,000		Monroe Ave.	South

INTERESTING VALUATION DATA FROM TWENTY-EIGHT AMERICAN CITIES

Continued

	Highest residence land value	Highest factory land value	City zoned?	Percentage tax value to real value	Type of City	Report made by
Philadelphia..					Industrial	
Detroit.......	$300		No	75%	Industrial	H. T. Clough, Secy., Realty Board.
Boston.......	$25	$2.09	No	80%	Commercial	W. E. Chamberlain, Secy., Realty Board.
Los Angeles..	$400	$3.00 sq. ft.	No	100%	Commercial	E. G. Hart, Pres., Realty Board.
St. Louis.....	$350	$1.50	Yes	50%	Commercial	O. J. McCawley, Pres., Realty Board.
Pittsburgh....	$600		Yes	100%	Industrial	C. E. Keck, Pres., Realty Board.
Cleveland.....	$300	$20.00	Yes	80%	Industrial	
Minneapolis...	$300	$5.00	No	80%	Industrial	H. W. White, Pres., Realty Board.
Washington...		$1.00	Yes	40%	Capitol	J. A. Petty, Secy., Realty Board.
Trenton......	$150		No	66%	Industrial	Leo F. Hughes, Pres., Realty Board.
New Orleans.	$225	$3.50 sq. ft.	Yes	85%	Commercial	J. L. Onorato, Pres., Realty Board.
Seattle.......	$100	$1.00	Yes	100%	Industrial	G. A. Spencer, Pres., Realty Board.
Toronto......	$223	$1.00	No		Commercial	P. C. Browne, Secy., Realty Board.
Indianapolis..	$300		Yes	90%	Commercial	S. R. Brewer, Pres., Realty Board.
Toledo.......	$300	$2.00	Yes	80%	Industrial	L. C. Price, Secy., Realty Board.
St. Paul......	$200	$0.50	Yes	40%	Commercial	W. J. Driscoll, Pres., Realty Board.
Omaha.......	$125	$4.75	Yes	60%	Commercial	C. B. Stuht, Pres., Realty Board.
Louisville.....	$150	$1.08	No	100%	Commercial	E. L. Taylor, Pres., Realty Board.
Rochester.....	$160	$1.50	Yes	80%	Industrial	C. C. Culver, Pres., Realty Board.
Dayton.......	$110	$0.50	No	70%	Industrial	G. L. Coleman, Pres., Realty Board
Ft. Wayne....	$100	$1.75	No	80%	Commercial	W. H. Scheiman, Pres., Realty Board.
Winnipeg.....	$150		No	100%	Commercial	E. C. Ransby, Ex Secy., Realty Board.
Birmingham..	$150		No	40%	Industrial	J. L. Yancey, Pres., Realty Board.
Atlanta.......	$250	$1.00	Yes	70%	Commercial	W. Wight, Realtor.
Tacoma.......	$ 60	$0.30	Yes	40%	Industrial	B. B. Heuston, Pres., Realty Board.
Canton.......	$200	$1.00	Yes	60%	Industrial	E. C. Roberts, Pres., Realty Board.
Oakland......	$150	$2.00	No	50%	Industrial	F. F. Porter, Pres., Realty Board.
Portland......	$100	$0.75	No	75%	Commercial	H. G. Beckwith, Pres., Realty Board.
Newark......			Yes	80%	Industrial	C. F. Kraemer, Pres., Realty Board.
Miami........	$1000		No	75%	Commercial	W. L. Greene, Secy., Realty Board.
Grand Rapids.	$150	$0.60	Yes	100%	Industrial	P. W. Decker, Realtor.

The New Authoritative Book On

LONG AND SHORT TERM
LEASEHOLDS

By Stanley L. McMichael, Realtor
Former Secretary, Cleveland Real Estate Board

SCOPE—Written by a practical realtor, experienced especially in 99-year leaseholds. Not technical or complex, but easily understood by the average reader. Every branch of long and short time leasing discussed in an interesting manner. A realtor, investor, owner, or attorney, unfamiliar with long and short leases, will glean invaluable information from this volume.

CONTENTS—The book contains thirty interesting chapters and thirty complete leases, some having nearly 10,000 words, being the very best forms available. Also, a valuable addenda containing rare and useful tables. Eight full page half-tone illustrations of buildings erected on land leased for long terms. Nearly 300 pages, in heavy cloth binding, lettered in gold.

ENDORSEMENT

> "Long and Short Term Leaseholds," the first of a series of text books planned by the National Association of Real Estate Boards, is refreshing in narrative and rich in significant detail.
>
> The author is a student and writer of large experience, a Realtor of national reputation, and his work in its latest edition has been admirably revised, broadened in scope, and amplified in addenda.
>
> "Long and Short Term Leaseholds" appeals to the practical man, and is recognized by the National Association of Real Estate Boards as a standard reference for workers and libraries in a field of ever increasing and commanding importance.
>
> (Signed) IRVING E. MACOMBER,
> Chairman of The Publication Council,
> National Association Real Estate Boards.

HOW TO OBTAIN IT—This book may be ordered direct from the publisher at a price of $4. Money back if not satisfactory. The only book on modern leasing ever published in America. Make it a part of your library.

THE
STANLEY McMICHAEL
PUBLISHING ORGANIZATION

Realty Building 1222 Prospect Avenue
CLEVELAND, O.

UTL AT DOWNSVIEW
D RANGE BAY SHLF POS ITEM C
39 16 07 23 05 011 5